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ABSTRACT

This study presents the results of the 1970-71 National Assessment of Reading regarding "Understanding Words and Word Relationships." Subjects at four age levels--nine, thirteen, seventeen, and young adult (26-35)--were tested on eight aspects, or themes, of reading: (1) understanding words and word relationships, (2) graphic materials, (3) written directions, (4) reference materials, (5) reading for significant facts in passages, (6) main ideas and organization, (7) drawing inferences, and (8) critical reading. The report presents a summary of the results for all ages tested, presents detailed results for each of the four age levels, and concludes by presenting comparisons of the results for various age levels. (Some sample exercises and charts will have poor reproducibility due to type size.) (DI)

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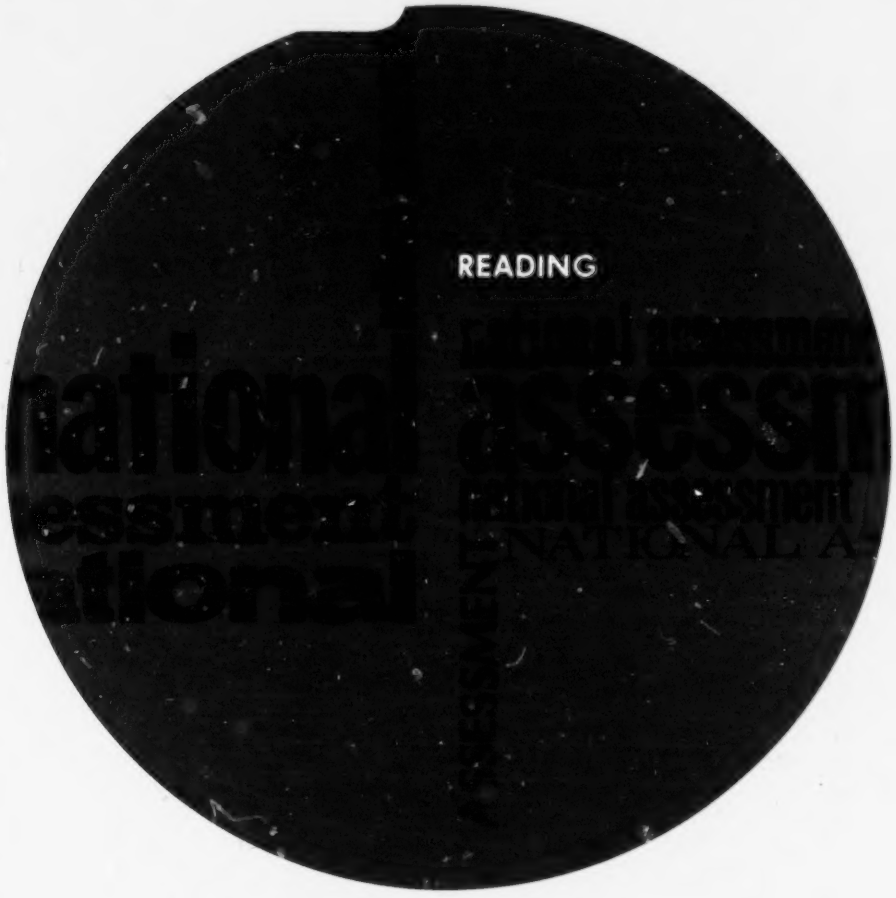

REPORT 02-R-01

UNDERSTANDING WORDS AND WORD RELATIONSHIPS

1970-71 Assessment

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
A PROJECT OF THE EDUCATION COMMISSION OF THE STATES

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

A Project of the Education Commission of the States

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#02-L-04	Literature: A Survey of Reading Habits (Theme 4)	May, 1973

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Report 02-R-01

UNDERSTANDING WORDS AND WORD RELATIONSHIPS

Theme 1 of the National Assessment of Reading

April, 1973

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INTRODUCTION TO THE THEMES

The results for the Year 02 assessment (Reading and Literature) are the first to be reported by theme. Conceptually, a theme defines a set of existing and potential exercises that relate to each other in content or some central idea that is meaningful to the subject area of concern. This format allows presenting all relevant results for each theme in a single report. The eight Reading themes are described briefly at the end of this introduction.

In its broadest sense, "reading" can mean such diverse things as a fortune teller's "reading" tea leaves, one person "reading" another's facial expression and so on. National Assessment is concerned with "reading" in a narrower sense--those "reading skills" usually taught in the schools--and the percentages of individuals who have attained those skills.

In everyday life, people encounter such diverse types of reading materials as books, newspapers, reference works, directions, sundry graphic materials, and others. Many of these materials can be read "on the surface" or "in depth." A person may simply glean isolated facts from reading materials; or he may relate these facts to recognize the central idea the facts support, draw complex inferences from the facts, or criticize the content. In his essay, "Of Studies," Francis Bacon said,

> Some books are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts; others to be read but not curiously; and some few to be read wholly, and with diligence and attention . . . Reading maketh a full man; . . . therefore, . . . if [a man] read little, he had need have much cunning, to seem to know that he doth not.

Some types of reading materials, therefore, neither require nor merit a deep, penetrating study that involves high level behaviors. Extrapolating from the Bacon quotation, we might say that a "good" reader can, first of all, discriminate between those materials that are best read shallowly and those that require a reading in depth. Then when he finds a work that needs to be "chewed and digested," he is able to do so effectively. A "poor" reader, on the other hand, can <u>at best</u> cope with the "shallower" types of reading materials and can only muddle on the surface of more profound works.

The Reading themes represent both a variety of reading materials and a variety of behaviors these materials require. They were developed by members of the National Assessment staff and reading specialists to cluster the Reading exercises into reporting categories that are meaningful to lay persons, scholars, and educators who are concerned with the reading skills of various groups of young Americans.[1]

The themes are numbered--the lower numbers designating skills that are usually identified with early reading and the higher numbers designating high order skills. Successful performance on exercises in the higher numbered themes requires some of the abilities measured in the lower numbered themes in addition to the higher order skill. This increasing complexity is apparent in the brief descriptions (below) of the Reading themes. A more detailed description of each theme appears in Chapter 1 of the respective theme report.

Theme 1: Understand Words and Word Relationships

Since most reading materials contain words, any cognitive behavior toward them requires at a minimum that the reader be able to understand the meanings of words and how words relate to form a meaningful whole. Exercises in this theme are of three types. One type requires the individual to give the meaning of a word occurring in isolation; another type requires the individual to derive the meaning of a word from its contextual use; and a third type requires the individual to recognize when sets of words relate to form a meaningful whole.

A person must be able to do more than merely recognize words and word relationships. In order to function adequately in everyday life, he must also be able to glean important facts from many types of materials. Themes 2-5 are all concerned with a person's ability to identify and extract significant factual information, but they differ in the method used to present the factual information.

Theme 2: Graphic Materials

Subtheme A: Interpret drawings and pictures
Subtheme B: Read signs and labels
Subtheme C: Read charts, maps, and graphs
Subtheme D: Read forms

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[1]See Chapter 3, General Information Yearbook (Report 02-GIY).

Theme 2 is characterized by materials using a variety of formats other than line-by-line narrative to convey their messages. Graphic materials can be used alone in lieu of line-by-line narrative or can be used in conjunction with line-by-line narrative to clarify or augment its meaning.

Theme 3: Written Directions

Subtheme A: Understand written directions
Subtheme B: Carry out written directions

Directions are information-imparting materials that tell how to do something. The subtheme understand written directions requires only that an individual indicate that he could perform what the directions state, given the opportunity. The subtheme carry out written directions requires the individual to actually perform what the directions state under circumstances that imply understanding as a prerequisite for adequate performance.

Theme 4: Reference Materials

Subtheme A: Know appropriate reference sources
Subtheme B: Use reference materials effectively

In order to utilize information from reference materials, an individual must first know which type of reference to consult for a specific kind of information. This is the requirement of the subtheme know appropriate reference sources. Once the appropriate source is located, an individual must be able to extract the desired information, that is, use reference materials effectively.

Theme 5: Read for Significant Facts in Passages

This theme requires the most concrete level of behavior toward line-by-line narrative. Some exercises require the individual to extract certain facts while the passage is still available to him for reference. Other exercises require the individual to recall certain facts when the passage is no longer available. Still other exercises require the individual to discern ways in which certain facts relate to each other. While all three types of exercises are concerned with facts, they require increasingly high levels of behavior.

Only if a person can successfully glean important facts from the types of materials in Themes 2-5 is he able to function adequately in everyday life. A good reader, however, goes beyond just gleaning facts from materials. He is able to engage in higher levels of behavior toward the materials. These higher level behaviors are the topics of Themes 6-8. Most of the exercises

involve line-by-line narrative, but some represent materials like those in Themes 2-4.

Theme 6: Main Ideas and Organization

Identifying the main idea of a passage or discovering its organization requires a higher level of comprehension than merely gleaning the important facts. Some exercises require the individual to identify the main idea being expressed in a passage either by suggesting an appropriate title or by identifying the point the author is attempting to make. Other exercises require the individual to identify the mode in which the author organizes the facts.

Theme 7: Drawing Inferences

Drawing inferences requires that an individual derive a conclusion not explicitly stated in the passage but which logically might be expected on the basis of the organization of the passage and the information it contains. For some exercises, the individual needs only the information in the passage to derive a conclusion; for others, however, he must also have some additional information based upon his prior experience.

Theme 8: Critical Reading

Critical reading requires from an individual the highest level of behavior--analysis and reasoning. In addition, it requires a reaction to or an opinion about the passage. Critical reading represents a deep interaction between author and reader that can lead to an understanding that is greater than the contribution of either.

METHODS OF DESCRIBING THE DATA

In order that the reader of this and other National Assessment reports be able to obtain the fullest benefit and meaning of the data we describe, we recommend that the reader consult the General Information Yearbook (Report 02-GIY). This Yearbook discloses the origin, purposes, and goals of the National Assessment project and the philosophy of assessment as contrasted to standardized testing. The Yearbook also presents the operational procedures and methods we use to obtain, score, analyze, and describe our data. We believe that this information is essential for the reader to obtain a full understanding of National Assessment data.

Describing the Data

We report results for four age levels (9, 13, 17, and young adult, 26-35). Within each age level across the nation as a whole (national level) we give results for four regions of the country (Northeast, Southeast, Central, and West); two sexes (male and female); two colors (Black and White); four levels of parental education (no high school, some high school, graduated from high school, and post high school); and seven sizes and types of community for ages 9 and 13 and in-school age 17 (extreme inner city, extreme rural, small city, medium city, rest of big city, suburban fringe, and extreme affluent suburb). Type-of-community information was not available for individuals in the out-of-school assessment (young adults and some 17-year-olds). For this reason, we report for young adults only the results for four sizes of community (big city, small place, medium city, and urban fringe). The size-and-type-of-community data reported for 17-year-olds applies only to those enrolled in school at the time of assessment.[1]

Most exercises have answers that can be scored "correct" or "incorrect." Many others, however, while having answers that cannot be scored "correct" or "incorrect," have some best answer or most desirable answer. We use the term percentage of success to describe the proportion of individuals who gave the correct, best, or most desirable answer to an exercise. We express a

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[1]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of these age levels and groups.

percentage of success for the nation as a whole (entire age level) and for each of these groups on each exercise.

We then determine the difference between the percentage of success for each group and the percentage of success for the nation as a whole, and the number we obtain is called an effect. An effect is expressed as the percentage of success for a group minus the percentage of success for the nation as a whole. For example:

Northeast % of Success	-	National % of Success	=	Northeast Effect

A positive (greater than zero) effect means that a larger percentage of individuals in a group gave an acceptable answer to an exercise than did so in the nation as a whole. For example, if 75% of 13-year-olds in the Northeast gave an acceptable answer, but only 68% of the 13-year-olds in the nation as a whole gave an acceptable answer, the Northeast effect for 13-year-olds would be

Northeast % of Success	-	National % of Success	=	Northeast Effect
74%	-	68%	=	6%

A negative (less than zero) effect means that a smaller percentage of individuals in a group gave an acceptable answer to an exercise than did so in the nation as a whole. For example, if 52% of 9-year-olds in the West gave an acceptable answer but 60% of 9-year-olds in the nation as a whole gave an acceptable answer, the West effect for 9-year-olds would be

West % of Success	-	National % of Success	=	West Effect
52%	-	60%	=	-8%

Limitations of the Data

The National Assessment of Educational Progress was created to provide data regarding the educational achievements of various groups of young Americans in 10 subject areas.[2] Within the limits

[2]Art, Career and Occupational Development, Citizenship, Literature, Mathematics, Music, Reading, Science, Social Studies, and Writing.

of error due to measurement[3] and sampling error,[4] the data presented in National Assessment reports accurately describe the educational achievements of these groups as they exist in the real world. These data portray the problems facing education--improving the educational achievements of various groups of students.

Although we refer to the observed difference between an achievement for a group and that for the nation as a whole as a group effect, we do not imply a cause-effect relationship between membership in a group and that group's level of achievement. Our use of the term effect derives solely from a statistical usage. National Assessment is not intended to provide reasons for differences if they exist. Many factors can and frequently do affect the educational achievements of members of various groups. Consider, for example, a hypothetical group whose achievement is well above the national level. Most members of the groups may attend schools that have excellent physical facilities and high quality faculties, belong to high social-economic families, have many reading materials available in the home, encouragement from their parents and so on. All these factors--and others--could contribute to the group's high level of achievement while membership in the group itself may contribute very little or nothing. We simply cannot assess some of these contributing factors directly. Some of these factors are points of sensitivity to various groups. The information necessary to assess certain factors is often not obtainable (for example, younger children may not know the information). Other factors may not yet have been identified. The factors we assess "stand in" for many other factors that can and do influence educational achievement and, therefore, reflect different levels of achievement among groups.

The name of a group is merely a categorical label. Therefore, the characteristic(s) indicated by a group's name must not be

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[3]Measurement error stems from three basic sources: (1) the measuring instrument; for example, instructions may be misleading, questions vaguely phrased, or contain a tipoff to the correct answer; (2) the examinee; for example, may be emotionally upset, physically ill or handicapped, or lack motivation; and (3) the measurement situation; for example, temperature and lighting conditions, noise level, pleasantness of surroundings, and the test administrator.

[4]When data are obtained from samples of entire populations, it is improbable that the numbers we obtain are exactly the same as we would have obtained from the entire population. See the General Information Yearbook, Chapter 10 and Appendix C (Report 02-GIY) for a discussion of sampling error and standard error.

construed as necessarily being the cause or even as being a cause for the comparatively high or low achievement of that group compared to the national level. Often, a disproportionately large percentage of members of a group of interest are also members of particular groups defined by other factors; all these factors may contribute to the group's high (or low) level of achievement.

The aim of National Assessment is to describe the educational achievement of entire groups, that is, populations. While we do not obtain data from all members of any group, we obtain data from carefully selected representative samples. Even data obtained in this way, however, are subject to error. Because of this error, the group effects we observe in the sample data will not be exactly the same as if we were to assess all members of the group. We use statistical procedures to determine the probable extent of this sampling error.

Our major concern is with the direction of population effects. When we look at each sample effect, therefore, we need to ask, "Is this sample effect large enough that we can be reasonably certain that the direction of the population effect is the same as that of the population effect?" When the size of a sample effect is at least two times as large as its standard error, the probability is at most 5% that an effect this large or larger would be obtained from a sample if no real population effect in that direction existed. We call such effects reliable and indicate them on exhibits with asterisks (*) to show that the indicated direction is reasonably certain for the population effect.

Reasonable certainty of direction is often not the same as a sample effect's being large enough for the corresponding population effect to be of practical importance. This must be judged by the user. In making such judgments about sample effects, however, the user must pay attention to their reliability, that is, their certainty or uncertainty of direction. If we cannot be reasonably certain that a sample effect has the same direction as the corresponding population effect (no asterisk), we cannot place much weight on its size, even if we would judge its size and direction quite important knowing this value to be the population effect.

Summarizing the Data

In summarizing the data for a group, we talk of the group's overall behavior and certain specific behaviors. An overall behavior is represented numerically by the group's median effect and reflects its relative performance as a whole on a theme. A specific behavior is represented numerically by a group's effect on a given exercise (or part of an exercise) and reflects its relative performance only on that exercise (or part). Summary statements about a group's overall behavior are derived from the

group's specific effects on the individual exercises in a theme; however, it is often the case that such general statements about overall behavior do not adequately describe some of the specific effects. Therefore, caution must be exercised when applying summary statements to individual exercises. Summary statements describe a group's overall behavior on a set of exercises, that is, the behavior we would expect from the group based on the data at hand. In addition to describing each group's overall behavior, we also indicate those exercises on which each group behaved differently than we would expect relative to its own overall or median level.[5]

In summarizing the data for a theme, we would like to make a single statement that describes each group's overall behavior relative to the national level. One suitable number that describes such overall behavior is the group's median effect. It tells where the center of the distribution of a group's effects is located, that is, half the effects are above and half below the median value. However, it could be misleading to say that a group's overall behavior is above or below the national level simply because its median effect is above or below the national level. A group whose median effect is close to the national level (for example, 0.2) probably behaved more like than very different from the national level on the given set of exercises (theme).

We stated above that we could place little weight on unreliable effects. However, if a large enough proportion of a group's effects--even if none are reliable--occur either above or below the national level, we have an indication that the group's overall behavior tends to be above or below the national level. If, in addition to having a large proportion of its effects occurring in one direction, a group has many reliable effects, we have an indication that the group's overall behavior differs more strongly from the national level. We have adopted the following rules to describe when a group's overall behavior: (1) tends to be about the same as the national level, (2) tends to be different (differs weakly) from the national level, or (3) is characteristically different (differs strongly) from the national level.

1. A group's overall behavior on a theme tends to be about the same as the national level if fewer than 75% of its effects occur either above or below the national level. In other words, if a group's upper

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[5]A median is the point in an ordered set of values below which 50% of the values occur. For a more complete description of the median, see the General Information Yearbook, Appendix E (Report 02-GIY).

quartile[6] effect is positive (greater than zero) and the lower quartile[6] is negative (less than zero), the group's overall behavior is about the same as the national level.

2a. A group's overall behavior on a theme tends to be above the national level if at least 75% of its effects are positive. In other words, if a group's lower quartile effect is positive, the group's overall behavior tends to be above the national level.

2b. A group's overall behavior on a theme tends to be below the national level if at least 75% of its effects are negative. In other words, if a group's upper quartile effect is negative, the group's overall behavior tends to be below the national level.

3a. A group's overall behavior on a theme is characteristically above the national level if at least 75% of its effects are positive and if more than 50% of its effects are reliably greater than zero.

3b. A group's overall behavior on a theme is characteristically below the national level if at least 75% of its effects are negative and if more than 50% of its effects are reliably less than zero.

Both direction tendencies and directional characteristics provide a means of comparing each group's overall behavior with the national level. They do not tell us, however, on which exercises a group behaves quite differently than we would expect on the basis of its overall behavior.

Atypical Group Behaviors

In addition to describing each group's overall behavior relative to the national level, we describe each group's specific behaviors relative to its own overall level of behavior. As we stated earlier, a suitable number that describes a group's overall behavior is its median effect. Note on Exhibit M-1 how a group's effects distribute around the median point. An arrow (→) indicates the location of the median point of each distribution. For

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[6]The lower quartile is the point in an ordered set of values below which 25% of the values occur. The upper quartile is the point in an ordered set of values below which 75% of the values occur. For a more complete description of the quartiles, see the General Information Yearbook, Appendix E (Report 02-GIY).

many groups, some effects stand notably apart from most of those in the distribution. We can think of these outstanding effects as representing a group's atypical behaviors, that is, the group's specific effects that differ markedly from its overall behavior (or median level). We have adopted the following rule to identify those exercises on which a group exhibits atypical behavior.

If an effect for a given exercise departs from the median effect by an amount at least two and one half times as large as the pooled standard error[7] of all the group's effects for a given set of exercises (theme), the group's behavior on that exercise is atypical. Again, look at the example exhibit (M-1). The zero line (Ø) represents the national level of behavior. An effect is represented by a box with an X (☒) unless it is atypical. An atypical effect is represented by an open box (☐).

If a group's overall behavior has no directional tendency, that is, if it tends to be about the same as the national level, it suffices to say that an atypical behavior is high or low for that group. See, for example, the distribution of effects for the small-city group (SC) on Exhibit M-1.

On the other hand, if a group's overall behavior has either a directional tendency or a directional characteristic above the national level, or if a group's overall behavior has either a directional tendency or a directional characteristic below the national level, it is not sufficient to say that a group's atypical behavior is simply high or low. Consider, for example, the distributions for two groups from Exhibit M-1. The overall behavior for the no-high-school (NHS) parental-education group is characteristically below the national level, and the overall behavior for the post-high-school (PHS) group is characteristically above the national level. The atypically low behaviors of the NHS group are even farther from the national level than its own median level while the atypically low behaviors of the PHS group would be closer to the national level than its own median level. Conversely, the atypically high behaviors of the PHS group are even farther from the national level than its own median level while the atypically high behaviors of the NHS group are closer to the national level than its own median level.

It seems logical that we consider together: (1) those atypical behaviors that are farther from the national level than a group's

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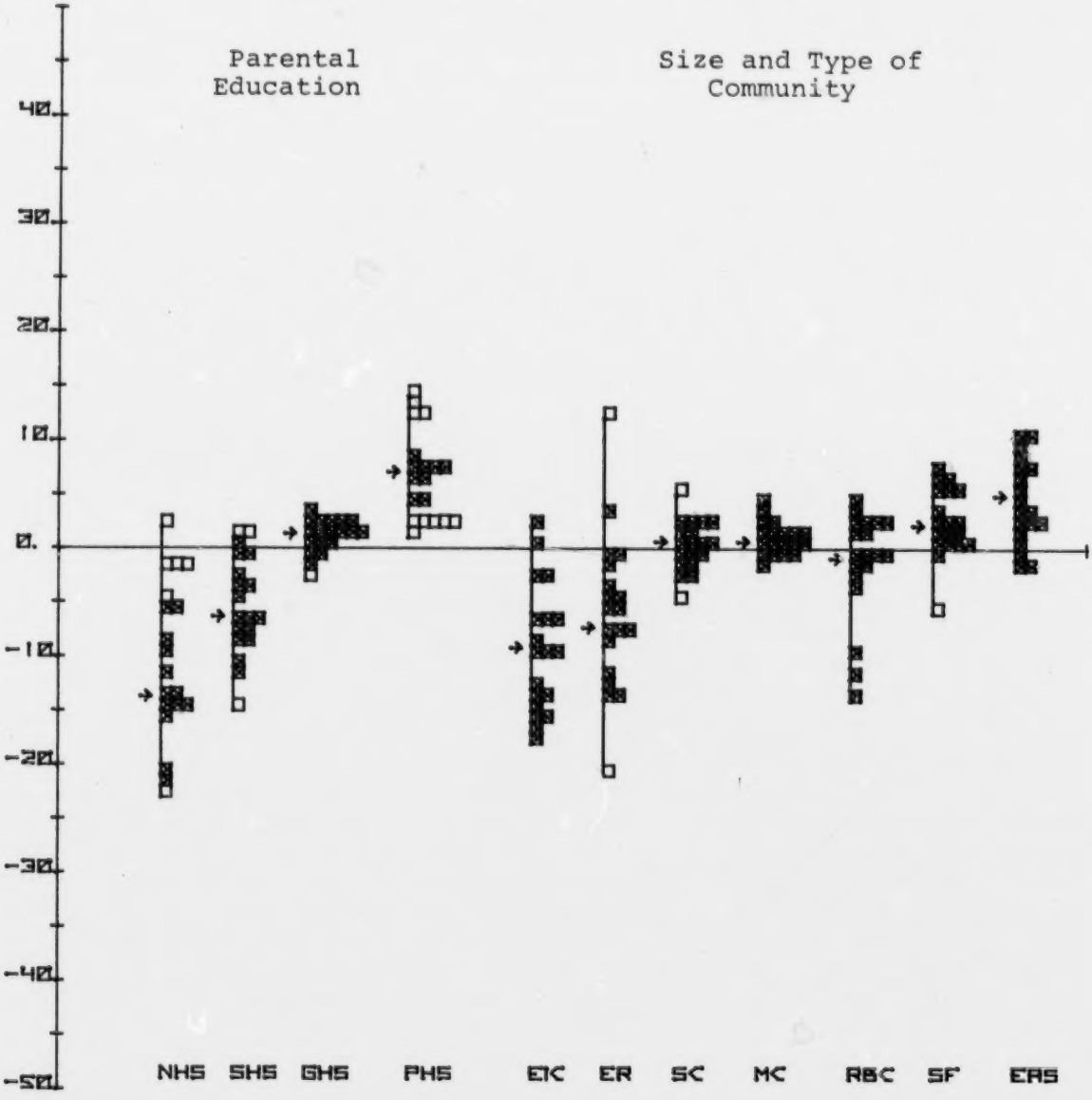
[7]Chapter 10 and Appendix C of the General Information Yearbook (Report 02-GIY) discuss the meaning and use of the standard error. Appendix C gives the formula for the pooled standard error we use.

Exhibit M-1

Example Distributions of Effects



	NHS	SHS	GHS	PHS	EIC	ER	SC	MC	RBC	SF	ERS
Median Effect	-13.7		1.3		-9.2		0.6		-0.9		4.9
		-6.3		7.0		-7.3		0.6		2.2	

KEYS:

Region

SE	Southeast
W	West
C	Central
NE	Northeast

Sex

M	Male
F	Female

Color

B	Black
W	White

Parental Education

NHS	No High School
SHS	Some High School
GHS	Graduated from High School
PHS	Post High School

Size and Type of Community (STOC)

EIC	Extreme Inner City
ER	Extreme Rural
SC	Small City
MC	Medium City
RBC	Rest of Big City
SF	Suburban Fringe
EAS	Extreme Affluent Suburb

Size of Community (SOC)

BC	Big City
SP	Smaller Places
MC	Medium City
UF	Urban Fringe

own median level and (2) those atypical behaviors that are closer to[8] the national level than a group's own median level.

In summary, in the age level chapters (3, 4, 5, and 6), we give particular attention to those exercises on which each group had atypical behaviors. If a group's overall behavior has no directional tendency, we describe the group's overall behaviors as being either high or low. If a group's overall behavior has a directional tendency or a directional characteristic, we describe the group's atypical behaviors as farther from or closer to the national level than the group's own median level.

[8]An atypical effect (or behavior) described as closer to the national level most often is less extreme in the same direction as a group's tendency or characteristic. It sometimes happens, however, that a "closer to" atypical behavior occurs in the opposite direction from the national level as the group's median level. We use the single term, closer to, to describe all atypical behaviors that depart from a group's median level in the direction of the national level.

CHAPTER 1

THEME 1: UNDERSTANDING WORDS AND WORD RELATIONSHIPS

Before a person can understand words and the relationships of words to each other to form meaningful wholes, he must have at least a reasonable mastery of the fundamental skills usually taught in primary grades. This implies that he has a working knowledge of the language and is able to translate visible symbols into sound (vocal or subvocal) by sight identification or by some technique of word analysis. After the person produces the sounds that make up the word, can he understand it? It is at this point that the skills assessed in Theme 1 become important.

Theme 1 includes three types of exercises. In response to the first type, an individual must indicate that he understands words that appear in isolation, that is, with no verbal context. In order to do this successfully, he must either already have the word in his working vocabulary or he must derive the meaning of the word by analyzing any cues contained in the word. Usually, in order to succeed, an individual must have had some previous experience with the word in print.

Another type of exercise requires the individual to indicate that he understands a specific word when it appears in context with other words. He can sometimes make judgments or inferences about the meaning of a word that are based on his understanding of the total message as well as his previous knowledge about the specific word. The types of contextual aids presented in these exercises are familiar grammatical structures. The inferential process of determining word meaning is best demonstrated by using made-up words (see Exercise 120 in which "budgetism" is used to describe the spending habits of suburbanites) or nonsense words (several examples occur in Theme 7).

On a third type of exercise, the individual does not respond to a specific word: rather, he must identify a meaningfully related set of words (e.g., a sentence) as opposed to sets of words having no meaning. In order to succeed on this type of exercise, he must not only be able to understand the individual words but also how they relate to each other to form a meaningful whole.

Once a person can understand words and how they relate to each other, he has the "tools" to seek and glean relevant facts from a wide variety of materials (Themes 2-5).

CHAPTER 2

SUMMARY OF RESULTS

In summarizing the data for Theme 1: Understanding Words and Word Relationships, we compare the overall performances of the various groups to the national level on the set of exercises representing Theme 1. An overall performance represents the behavior we would expect from a given group on understanding words and word relationships on the basis of the data at hand.

Exhibit 2-1 shows the median group effects at each age level. Exhibit 2-2 shows the directional tendencies and the directional characteristics[1] of the overall group behaviors represented by the median effects.

1. A zero (0) indicates that a group's overall behavior tends to be about the same as the national level.

2a. A plus sign (+) indicates that a group's overall behavior tends to be above the national level.

2b. A minus sign (-) indicates that a group's overall behavior tends to be below the national level.

3a. A double plus sign (++) indicates that a group's overall behavior is characteristically above the national level.

3b. A double minus sign (--) indicates that a group's overall behavior is characteristically below the national level.

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[1]These terms are defined in Methods of Describing the Data, in the section Summarizing the Data.

Exhibit 2-1

Median Group Effects at Each Age Level

Age Level No. of Effects	9 (13)	13 (19)	17 (14)	Adult (8)
Region				
Southeast	-7.2	-5.2	-3.4	-10.6
West	0.7	-2.2	-1.1	4.2
Central	1.8	3.5	0.8	1.3
Northeast	2.5	1.5	1.9	1.9
Sex				
Male	-1.3	-2.6	-2.5	-0.9
Female	1.3	2.6	2.2	0.9
Color				
Black	-16.3	-22.5	-15.8	-21.1
White	2.7	3.7	2.0	2.7
Parental Education				
No High School	-8.8	-13.7	-6.9	-9.9
Some High School	-4.1	-6.3	-5.2	-1.2
Graduated High School	1.0	1.3	-0.6	3.2
Post High School	5.7	7.0	4.2	10.8
Size and Type of Community*				
Extreme Inner City	-11.7	-9.2	-6.2	
Extreme Rural	-3.0	-7.3	-1.6	
Small City	-0.1	0.6	-2.0	
Medium City	0.1	0.6	0.7	
Rest of Big City	0.9	-0.9	2.5	
Suburban Fringe	2.6	2.2	0.0	
Extreme Affluent Suburb	7.2	4.9	4.8	
Size of Community				
Big City				-3.6
Small Place				-0.3
Medium City				2.7
Urban Fringe				3.7

*Type of community information was not available for out-of-school individuals (young adults and some 17-year-olds). Size and type of community median effects at age 17 apply only to those in school.

Exhibit 2-2

Directional Tendencies and Directional Characteristics

Age Level	9	13	17	Adult
Region				
Southeast	--	--	--	--
West	0	-	-	+
Central	+	+	+	+
Northeast	+	0	+	0
Sex				
Male	0	--	--	-
Female	0	++	++	+
Color				
Black	--	--	--	--
White	++	++	++	++
Parental Education				
No High School	--	--	--	--
Some High School	0	--	--	0
Graduated High School	0	+	-	+
Post High School	++	++	++	++
Size and Type of Community*				
Extreme Inner City	--	--	-	
Extreme Rural	0	-	0	
Small City	0	0	-	
Medium City	0	0	0	
Rest of Big City	0	0	0	
Suburban Fringe	+	+	0	
Extreme Affluent Suburb	++	+	++	
Size of Community				
Big City				-
Small Place				0
Medium City				+
Urban Fringe				+

*Type-of-community information was not available for out-of-school individuals (young adults and some 17-year-olds). Size-and-type-of-community median effects at age 17 apply only to those in school.

CHAPTER 3

RESULTS FOR AGE 9

The 9-year-olds participating in the 1970-71 Reading assessment were born during the calendar year 1961. About three-fourths of them were enrolled in the fourth grade at the time of the assessment and most of the remainder were enrolled in the third grade.

First, we describe each group's overall behavior on the Theme 1 exercises, then we indicate those exercises on which the group's performance differs atypically from the group's median level. Finally, we present each released exercise and an exhibit showing the results for each group on that exercise.

Thirteen specific effects (behaviors) on understanding words and word relationships are summarized at age 9. Six of these represent released exercises and are described in detail. The other seven behaviors represent unreleased exercises to be used in future assessments. Exhibit 3-1 shows the distribution of the 13 effects representing Theme 1 for each group relative to the national level indicated by the Ø line. Each group's median level is indicated by an arrow (→). Each specific behavior is represented by a box with an X (☒) unless it differs atypically from the group's median level; then it is represented by an open box (☐).

When a group's overall behavior has been described as tending to be above (+) or tending to be below (-) or as characteristically above (++) or as characteristically below (--) the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[1] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that

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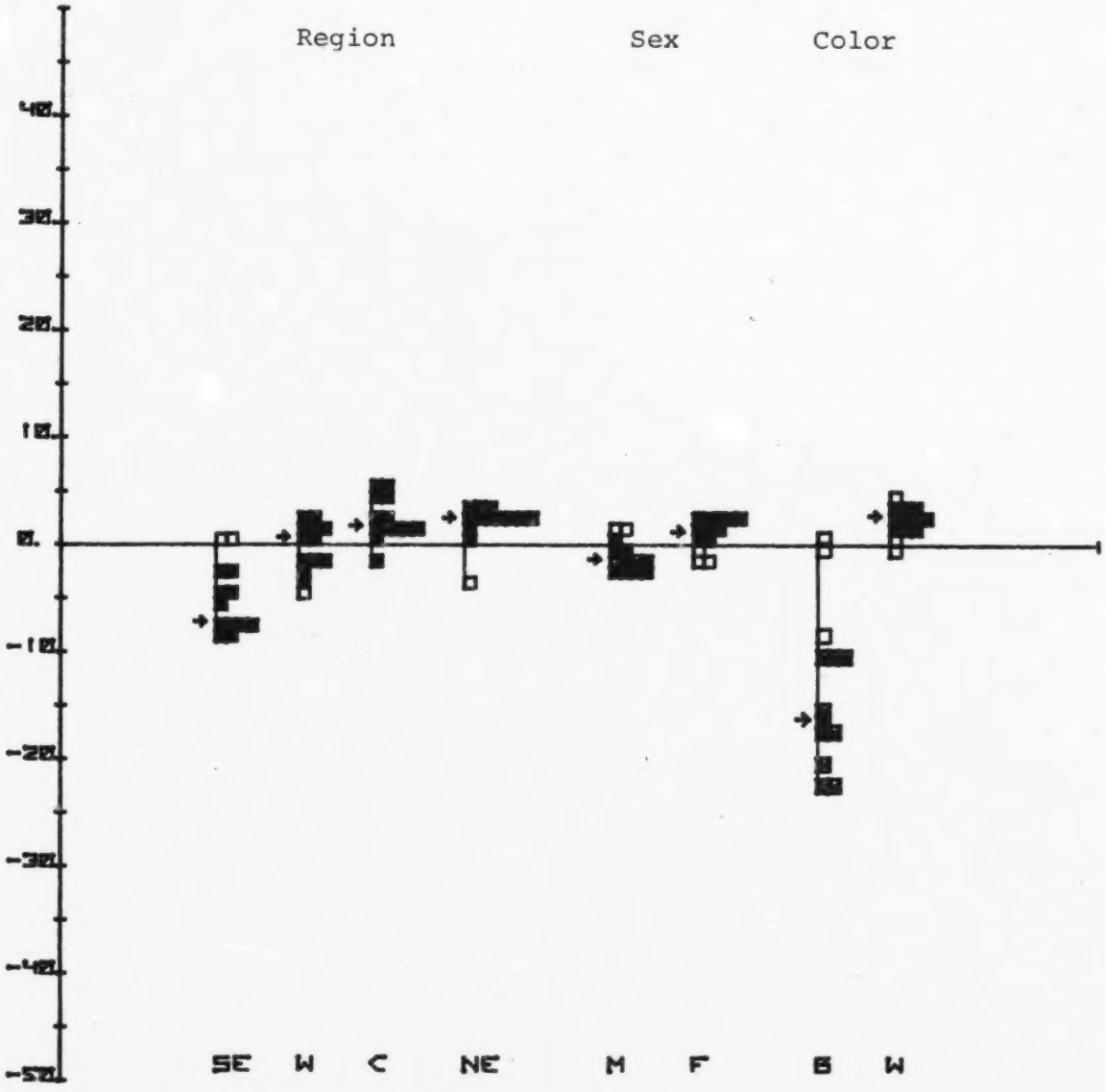
[1]An atypical effect (or behavior) described as being closer to the national level may be (1) less extreme in the same direction as a group's tendency or characteristic, or (2) it may occur in the opposite direction from the national level as the group's median level.

Exhibit 3-1A

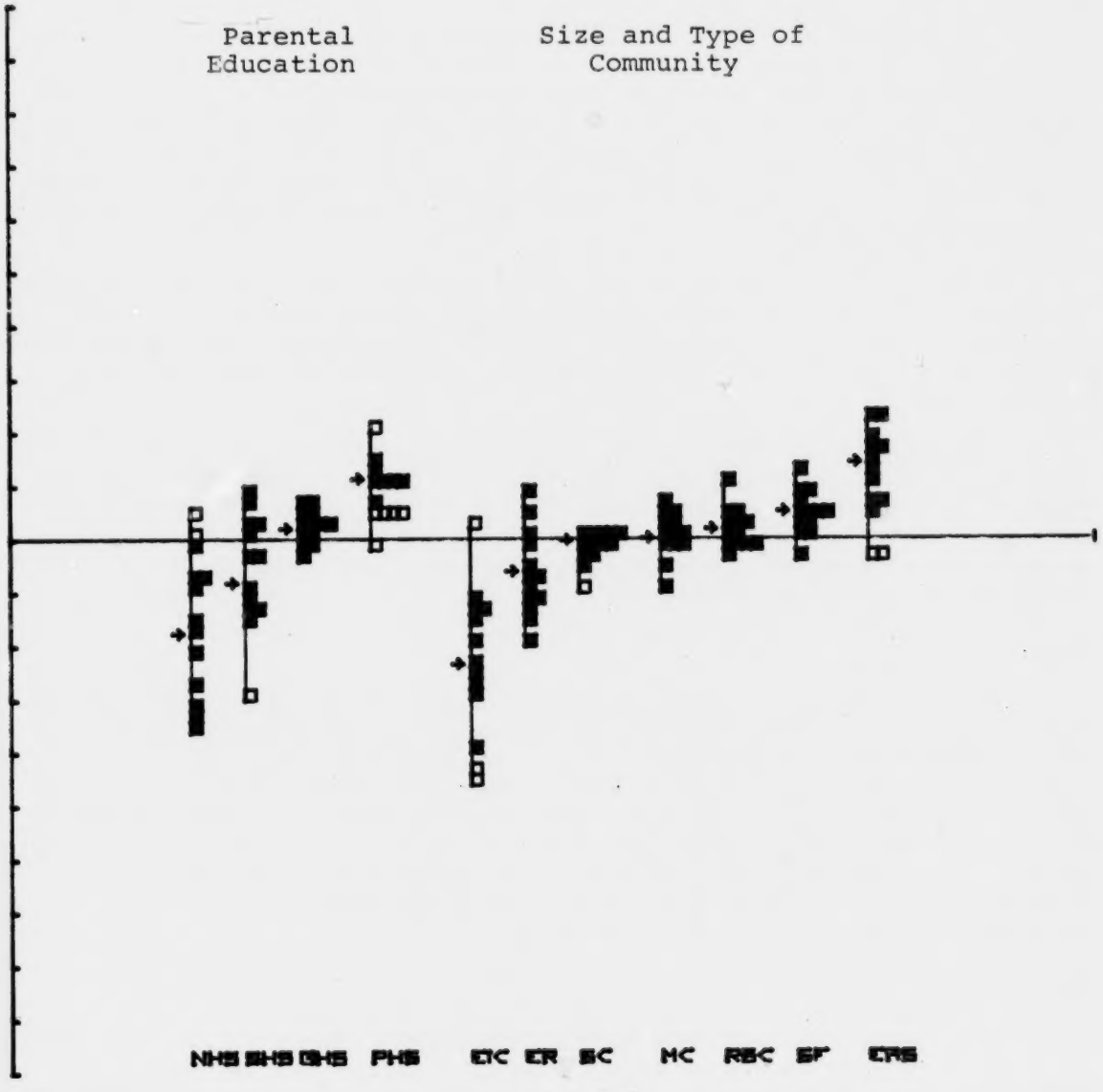
Distributions of Effects for Age 9



	SE	W	C	NE	M	F	B	W
Median Effect	-7.2		1.8		-1.3		-16.3	
		0.7		2.5		1.3		2.7

Exhibit 3-1B

Distributions of Effects for Age 9



	NHS	SHS	GHS	PHS	EIC	ER	SC	MC	RBC	SF	ERS
Median Effect	-8.8		1.0		-11.7		-0.1		0.9		7.2
		-4.1		5.7		-3.0		0.1		2.6	

group can be atypically high or low relative to the group's median level.

Region

The median of the effects for Southeastern 9-year-olds was -7.2. Their overall behavior was characteristically below the national level, but their behavior was atypically closer to the national level on two unreleased exercises. Exercise U103 required identification of the antecedent of "their" in a passage; exercise U112 required recognition of how "cache" was used in an exploration story. The effects for both exercises were slightly above the national level.

Western 9-year-olds had a median effect of 0.7. Their overall behavior is best described as being about the same as the national level. However, they behaved atypically low on one unreleased exercise (U107) that required recognizing the use of a microscope.

Central and Northeastern 9-year-olds had median effects of 1.8 and 2.5, respectively. The overall behavior of both groups tended to be above the national level. The Central 9-year-olds did not behave atypically on any exercise, but the Northeastern 9-year-olds behaved atypically closer to the national level on one unreleased exercise (U112).

Sex

While the girls' median effect was 1.3 and the boys' median effect was -1.3, the overall behavior of neither group showed a clear directional tendency. The boys behaved atypically high and the girls atypically low on two unreleased exercises. Exercise U107 required recognizing the use of a microscope, and Exercise U112 required recognizing how "cache" was used in an exploration story. The girls also behaved atypically low on another unreleased exercise (U103) that required identification of the antecedent for "their" in a passage.

Color

The median effect for Black 9-year-olds was -16.3, and their overall behavior was characteristically below the national level. However, they behaved atypically closer to the national level on three unreleased exercises: U103, U112, and R10403 that required distinguishing between ever and never.

White 9-year-olds had a median effect of 2.7. Their overall behavior was characteristically above the national level. They behaved atypically closer to the national level on two exercises (U103 and U112). However, Whites behaved atypically farther

from the national level on another unreleased exercise (U102) that required recognizing the use of "bat" in two senses.

Parental Education[2]

The no-high-school group had a median effect of -8.8. Their overall behavior was characteristically below the national level; however, they behaved atypically closer to the national level on unreleased Exercise U103 that required identification of the antecedent of "their" in a passage and on Exercise R121 that required recognizing a compound word.

The median effects for the some-high-school and graduated-from-high-school groups were -4.1 and 1.0, respectively. The overall behavior of these groups had no clear directional tendency. While the graduated-from-high-school group had no atypical behaviors, the some-high-school group behaved atypically low on released Exercise R109 that required choosing the correct phrase to make a complete sentence of "The boy wanted..."

The post-high-school group had a median effect of 5.7 and an overall behavior characteristically above the national level. They behaved atypically farther from the national level on unreleased Exercise U107 that required recognizing the use of a microscope. They behaved atypically closer to the national level on unreleased Exercise U103. The post-high-school group also behaved atypically closer to the national level on four released exercises that required identifying the labeled door "where you might go to eat lunch" (R101); "where you would take a visitor who wanted to see the person in charge of the school" (R111); that required distinguishing ever and never (R10403); and that required recognizing a compound word.

Size and Type of Community[3]

The extreme-inner-city group had a median effect of -11.7 and had an overall behavior characteristically below the national level. They behaved atypically closer to the national level on unreleased Exercise U103. They behaved atypically farther from the national level on unreleased Exercise U102 that required recognizing the use of "bat" in two senses. They also behaved atypically farther from the national level on released Exercise R106 that required recognizing which sign on a zoo cage indicated a dangerous animal.

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[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size_and_type_of_community groups.

The median effects for the extreme-rural, small-city, medium-city, and rest-of-big-city groups were -3.0, -0.1, 0.1, and 0.9, respectively. The overall behavior of these groups is best described as being about the same as the national level. The only atypical behavior shown was by the medium-city group who behaved atypically low on unreleased Exercise U105 that required selecting the correct phrase to complete a meaningful sentence.

With a median effect of 2.6, the suburban-fringe group had an overall behavior tending to be above the national level. They exhibited no atypical behaviors.

The median effect for the extreme-affluent-suburb group was 7.2 and had an overall behavior characteristically above the national level. They behaved atypically closer to the national level on two unreleased exercises (U103 and U112).

* * * * * * * * *

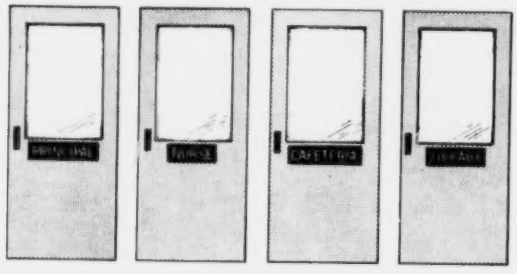
The data for each released exercise representing understanding words and word relationships is presented in the following manner. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 9-year-olds choosing each answer is also shown.

The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. The effects can also be seen graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national percentage of success.

RELEASED EXERCISES

Exercise 101 -- Age 9

Here are pictures of four doors you might find in a school.
Fill in the oval under the door where you might go for lunch.



Nat'l % Choosing Each Answer	0.8%	0.9%	95.2%	2.6%

0.3% ⬭ I don't know.

0.2% No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
95.2	---	NATIONAL	
		REGION	
90.7	-4.5*	Southeast	
95.3	0.1	West	
96.6	1.4	Central	
97.3	2.2*	Northeast	
		SEX	
93.9	-1.3*	Male	
96.5	1.3*	Female	
		COLOR	
84.7	-10.4*	Black	
97.1	1.9*	White	
		PARENTAL EDUCATION	
87.3	-7.8*	No High School	
93.9	-1.3	Some High School	
95.4	0.2	Graduated High Sch.	
97.4	2.2*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
88.7	-6.5*	Extreme Inner City	
92.2	-3.0	Extreme Rural	
95.7	0.5	Small City	
95.4	0.3	Medium City	
96.1	0.9	Rest Of Big City	
95.7	0.5	Suburban Fringe	
99.0	3.8*	Extreme Aff Suburb	

Exercise 101 -- Age 9

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

Nine-year-olds had to recognize that the door labeled "cafeteria" was where they might go for lunch. This appears to be an easy task for 9-year-olds since 95% of them answered correctly. A question that comes to mind is, would they have been just as successful had the words "principal," "nurse," "cafeteria," and "library" occurred without pictorial aid, that is, not as labels on doors. The "library" door was the most popular incorrect response especially among the Southeastern 9-year-olds, Blacks, and those in the no-high-school and extreme-inner-city groups.

Exercises 10401, 10402, 10403 -- Age 9

This exercise is analyzed by parts as well as in total.

	Nat'l % Choosing Each Answer	Read the sentences and do what they tell you to do.
10401		⬭ If you have EVER been to the moon, fill in the oval here.
	93.0%	Correct (did not fill in EVER oval).
	7.0%	Incorrect (filled in EVER oval).
10402		⬬ If you have NEVER been to the moon, fill in the oval here.
	93.5%	Correct (filled in NEVER oval).
	6.5%	Incorrect (did not fill in NEVER oval).
10403	91.6%	Both parts correct (did not fill in EVER oval and filled in NEVER oval).
	1.3%	Did not fill in either oval.
	1.9%	Filled in both ovals.
	5.2%	Filled in EVER oval and did not fill in NEVER oval.

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
91.6	---	NATIONAL	
		REGION	
88.7	-2.8	Southeast	
88.1	-3.5*	West	
94.1	2.5*	Central	
93.9	2.3*	Northeast	
		SEX	
89.6	-1.9*	Male	
93.6	2.0*	Female	
		COLOR	
82.7	-8.9*	Black	
93.6	2.1*	White	
		PARENTAL EDUCATION	
86.7	-4.8	No High School	
91.7	0.1	Some High School	
93.6	2.0	Graduated High Sch.	
93.9	2.4*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
81.7	-9.8*	Extreme Inner City	
86.3	-5.3	Extreme Rural	
91.8	-0.2	Small City	
93.3	1.7	Medium City	
91.2	-0.3	Rest Of Big City	
95.0	3.5*	Suburban Fringe	
98.7	3.1*	Extreme Aff Suburb	

Exercise 10403 -- Age 9

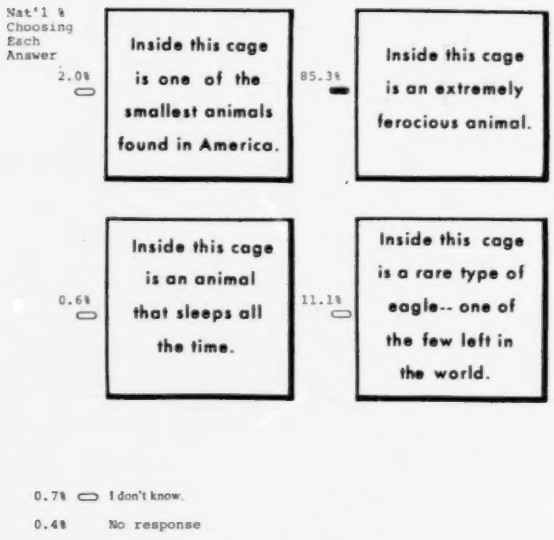
Overlap: Age 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

This exercise required 9-year-olds to discriminate between the positive and negative aspects of EVER and NEVER, and 92% of them responded correctly to both statements. The exhibit on the opposite page relates only to 10403--those who answered both parts correctly. An individual could be scored correct on 10401 if he made no response at all or could be scored correct on 10402 if he filled in both ovals.

Exercise 106 -- Age 9

People who run zoos sometimes put signs on animal cages to tell what the animals are like or where they come from. If you went to a zoo and saw these four signs on different cages, which one would tell you that there is a dangerous animal inside the cage? Fill in the oval beside the correct sign.

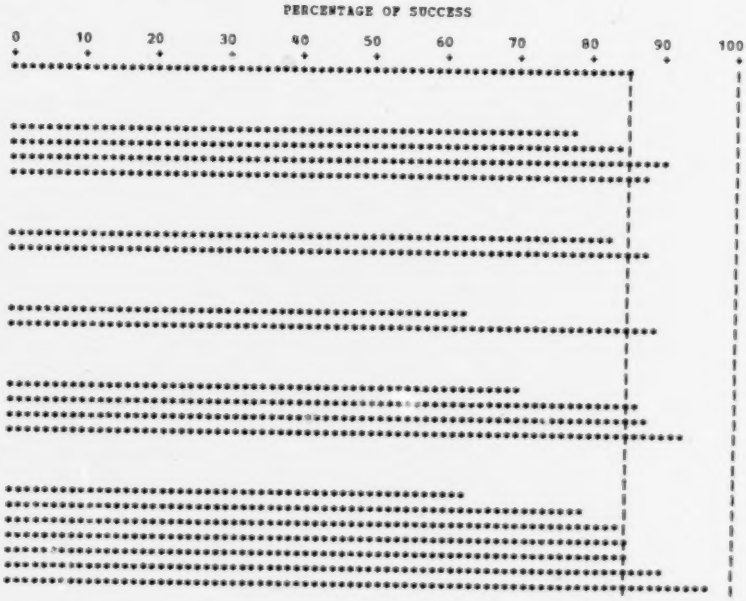


0.7% ⬭ I don't know.

0.4% No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
85.3	---	NATIONAL	
		REGION	
77.9	-7.4*		Southeast
83.5	-1.8		West
90.5	5.2*		Central
87.4	2.2		Northeast
		SEX	
82.9	-2.4*		Male
87.5	2.3*		Female
		COLOR	
62.9	-22.4*		Black
89.0	3.7*		White
		PARENTAL EDUCATION	
69.6	-15.6*		No High School
86.6	1.4		Some High School
87.3	2.0		Graduated High Sch.
93.0	7.8*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
62.9	-22.3*		Extreme Inner City
78.5	-6.7		Extreme Rural
84.1	-1.2		Small City
85.4	0.2		Medium City
84.8	-0.5		Rest Of Big City
89.6	4.3*		Suburban Fringe
96.3	11.1*		Extreme Aff Suburb



Exercise 106 -- Age 9

Overlap: Age 13

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

This exercise required that 9-year-olds know the meaning of "dangerous" and "ferocious." While 85% of them correctly selected the "ferocious animal" sign, 11% chose the rare eagle sign. One possibility is that some who did not recognize that ferocious and dangerous mean the same thing had heard that eagles are dangerous.

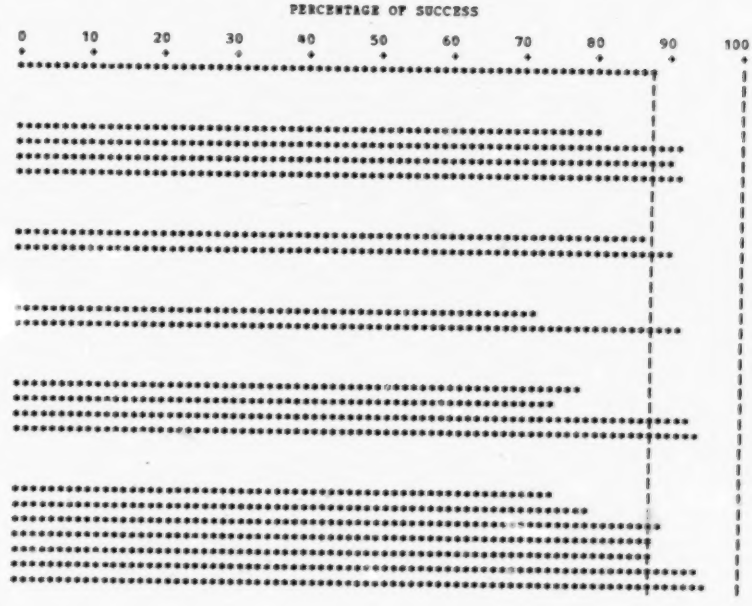
Exercise 109 -- Age 9

Complete the sentence with the words that make the most sense.

Nat'l % Choosing Each Answer	The boy wanted
88.1%	● a new ball.
0.8%	○ under dinner.
2.0%	○ rode his bike.
2.7%	○ to the circus.
4.1%	○ stopped raining.
2.1%	○ I don't know.
0.4%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
89.1	---	NATIONAL	
		REGION	
80.2	-7.9*		Southeast
90.6	2.5		West
89.5	1.4		Central
91.3	3.2		Northeast
		SEX	
86.6	-1.5		Male
89.6	1.5		Female
		COLOR	
71.8	-16.3*		Black
91.0	2.9*		White
		PARENTAL EDUCATION	
77.4	-10.7*		No High School
73.3	-14.8*		Some High School
92.0	3.9*		Graduated High Sch.
93.4	5.3*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
73.7	-14.4*		Extreme Inner City
79.7	-9.4*		Extreme Rural
88.9	0.8		Small City
89.1	-0.0		Medium City
87.9	-0.3		Rest Of Big City
94.2	6.0*		Suburban Fringe
94.8	6.7*		Extreme Aff Suburb



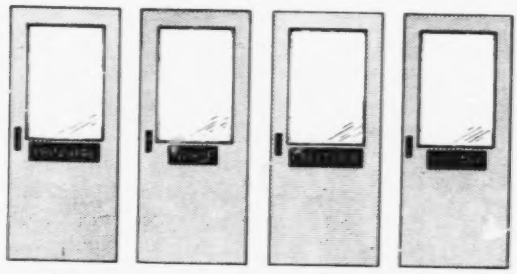
Exercise 109 -- Age 9

Objective I: Comprehend what is read.
Subobjective A: Read phrases, clauses, and sentences.

This exercise required 9-year-olds to select the phrase that goes with "The boy wanted" to make a meaningful sentence. To be successful they had to understand certain word relationships. Eighty-eight percent correctly chose "a new ball" to complete the sentence. Two of the incorrect foils that attracted 3% and 4%, respectively, of the 9-year-olds could be correct if other words are interpolated. For example: "The boy wanted [to go] to the circus," or "The boy wanted [it to] stop(ped) raining." The latter would also require a tense shift of stopped.

Exercise 111 -- Age 9

Here are pictures of four doors you might see in a school. Fill in the oval under the door you would send a visitor to who wants to see the person in charge of the school.



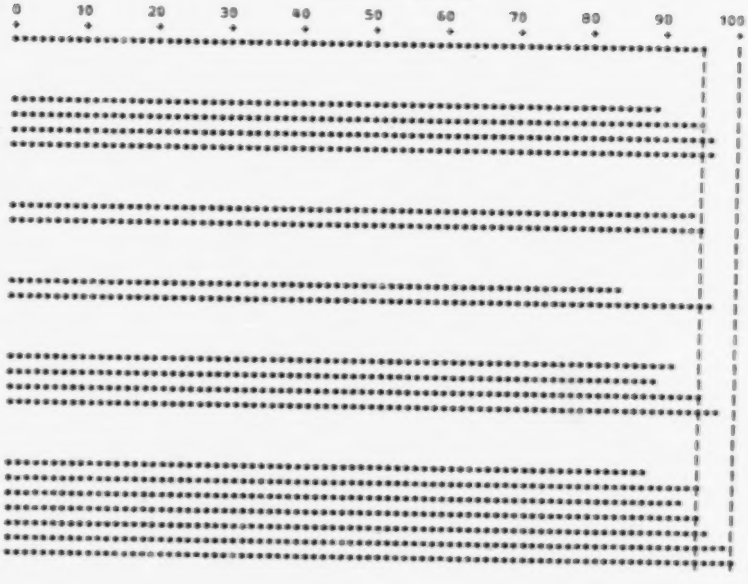
Nat'l % Choosing Each Answer	94.5%	1.1%	1.2%	2.1%

0.5% ⬭ I don't know.

0.6% No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP
94.5	---	NATIONAL
		REGION
88.9	-5.6*	Southeast
95.5	1.0	West
96.1	1.6*	Central
96.9	2.3*	Northeast
		SEX
93.7	-0.8	Male
95.3	0.8	Female
		COLOR
84.1	-10.4*	Black
96.4	1.9*	White
		PARENTAL EDUCATION
91.3	-3.2	No High School
89.1	-5.4	Some High School
95.0	0.5	Graduated High Sch.
97.8	2.9*	Post High School
		SIZE-AND-TYPE OF COMMUNITY
87.1	-7.4*	Extreme Inner City
95.0	0.5	Extreme Rural
92.9	-2.5*	Small City
94.6	0.1	Medium City
95.8	1.3	Rest Of Big City
99.2	4.7*	Suburban Fringe
99.7	5.2*	Extreme Aff Suburb



Exercise 111 -- Age 9

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

Nine-year-olds had to recognize that the door labeled "principal" was where he would send a visitor who wanted to see the person in charge of the school. The doors are the same as the ones used for Exercise 101. Again, 95% of the 9-year-olds were able to choose the correct door, and the most popular incorrect response was the "library" door, especially among the same groups that chose the library door on Exercise 101.

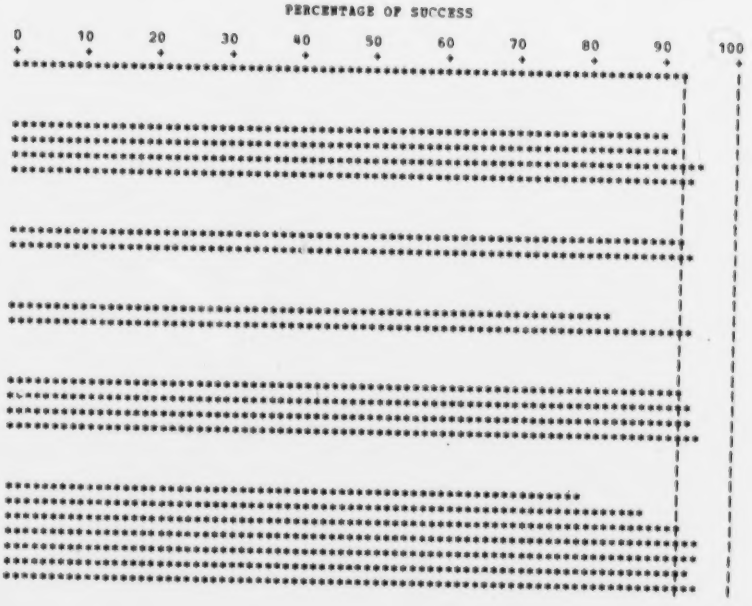
Exercise 121 -- Age 9

A compound word is a word which is made by joining two words together. Fill in the oval beside the compound word.

Nat'l % Choosing Each Answer		
1.8%	○	ACROBAT
92.6%	●	CLASSROOM
1.1%	○	SEPARATE
1.1%	○	SUMMER
1.8%	○	I don't know.
1.7%		No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
92.6	---	NATIONAL	
		REGION	
89.8	-2.8		Southeast
91.2	-1.4		West
94.4	1.8		Central
94.3	1.7*		Northeast
		SEX	
92.1	-0.6		Male
93.2	0.5		Female
		COLOR	
82.7	-10.0*		Black
94.1	1.5*		White
		PARENTAL EDUCATION	
93.1	0.4		No High School
94.1	1.5		Some High School
94.8	1.7		Graduated High Sch.
95.4	2.8*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
78.8	-13.8*		Extreme Inner City
88.1	-4.6		Extreme Rural
92.4	-0.2		Small City
95.1	2.4*		Medium City
95.2	2.5		Rest Of Big City
93.9	1.3		Suburban Fringe
94.7	2.1		Extreme Aff Suburb



Exercise 121 -- Age 9

Overlap: Age 13

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

This exercise required that 9-year-olds understand how two small words relate to each other to form a larger compound word. Ninety-three percent of them were able to identify "classroom" as the compound word.

CHAPTER 4

RESULTS FOR AGE 13

The 13-year-olds participating in the 1970-71 Reading assessment were born during the calendar year 1957. About three-fourths of them were enrolled in the eighth grade at the time of the assessment, and most of the remainder were enrolled in the seventh grade.

First, we describe each group's overall performance on the Theme 1 exercises, then we indicate those exercises on which the group's performance differs atypically from the group's median level. Finally, we present each released exercise and an exhibit showing the results for each group on that exercise.

Nineteen specific behaviors on understanding words and word relationships are summarized at age 13. Seven of these represent released exercises and are described in detail. The other 12 behaviors represent unreleased exercises to be used in future assessments. Exhibit 4-1 shows the distribution of the 19 effects for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). Each specific behavior is represented by a box with an X (☒) unless it differs atypically from the group's median level; then it is represented by an open box (☐).

When a group's overall behavior has been described as tending to be above (+) or tending to be below (-) or as characteristically above (++) or characteristically below (--) the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[1] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that group can be atypically high or low relative to the group's median level.

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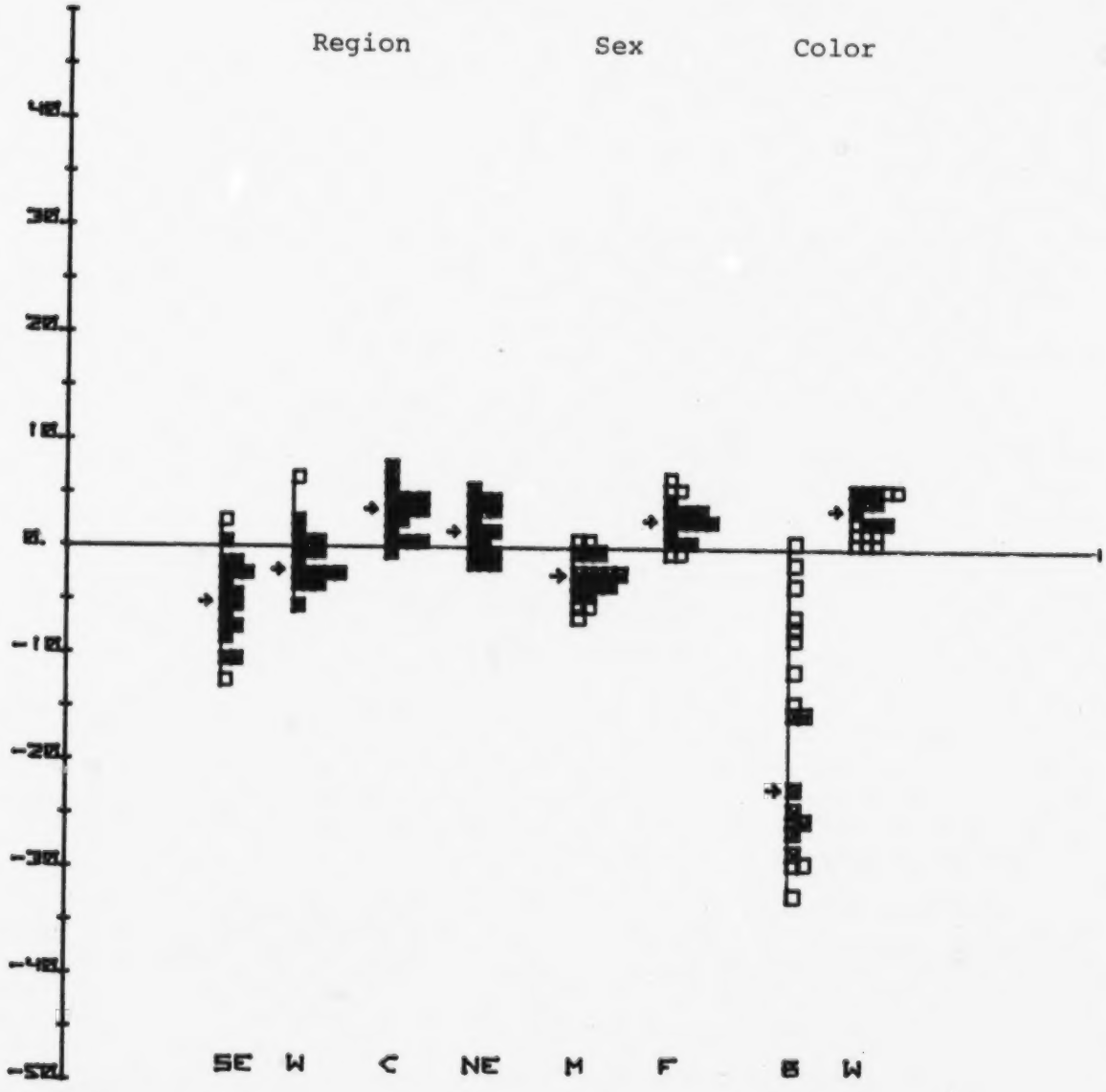
[1]An atypical effect (or behavior) described as being closer to the national level may be (1) less extreme in the same direction as a group's tendency or characteristic, or (2) it may occur in the opposite direction from the national level as the group's median level.

Exhibit 4-1A

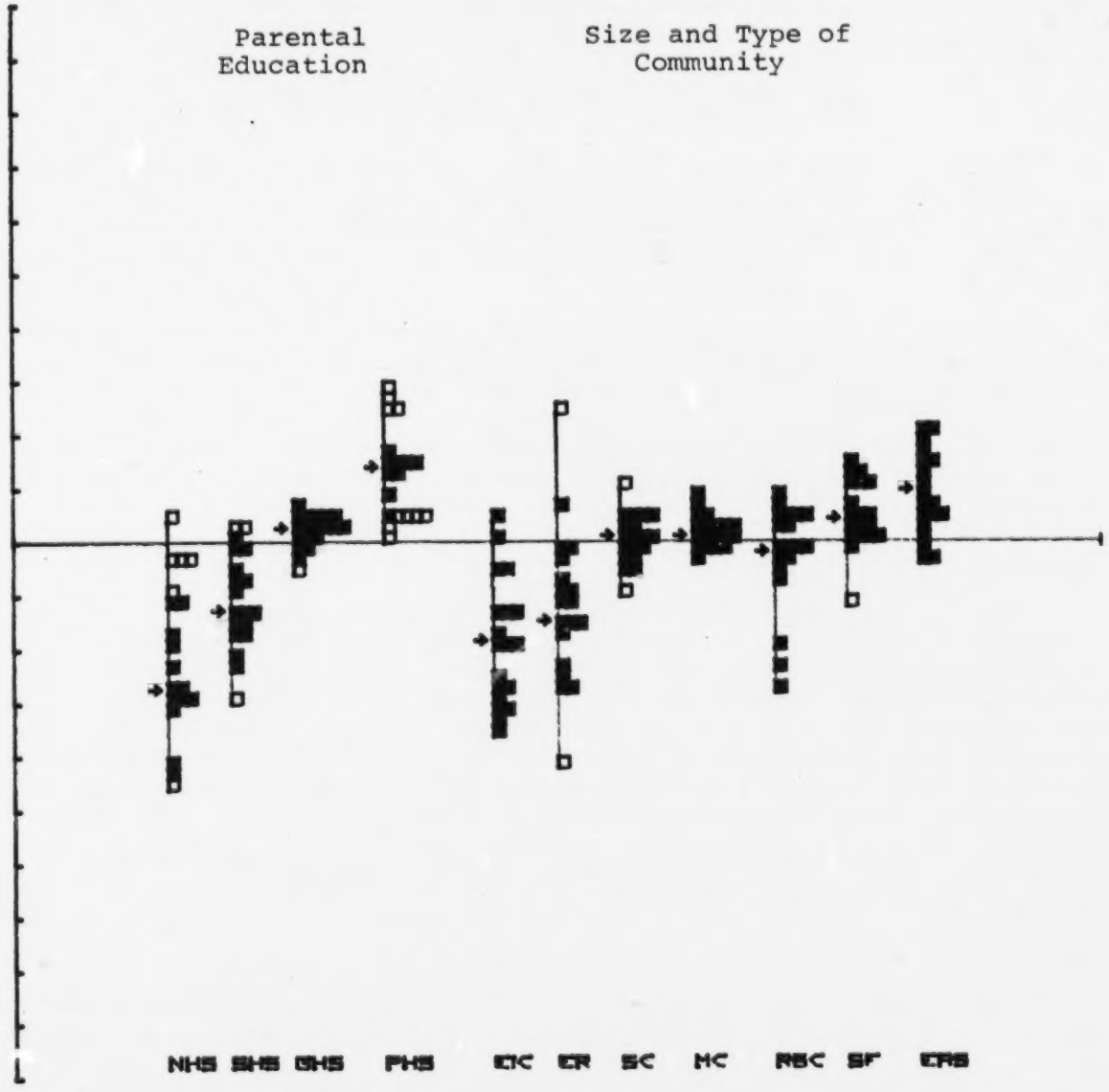
Distributions of Effects for Age 13



	SE	W	C	NE	M	F	B	W
Median Effect	-5.2	-2.2	3.5	1.5	-2.6	2.6	-22.5	3.7

Exhibit 4-1B

Distributions of Effects for Age 13



	NHS	SHS	GHS	PHS	EIC	ER	SC	MC	RSC	SF	ERS
Median Effect	-13.7		1.3		-9.2		0.6		-0.9		4.9
		-6.3		7.0		-7.3		0.6		2.2	

Region

The median effect for Southeastern 13-year-olds was -5.2. Their overall behavior was characteristically below the national level. However, they behaved atypically closer to the national level on released Exercise R120 that required giving the meaning of "budgetism" from its contextual use. They also behaved atypically farther from the national level on unreleased exercise U115 that required identification of the name of a game bird.

Western 13-year-olds had a median effect of -2.2 and an overall behavior tending to be below the national level. However, they behaved atypically closer to the national level on unreleased exercise U115 that required identification of the name of a game bird.

Central 13-year-olds had a median effect of 3.5, and their overall behavior tended to be above the national level. They did not behave atypically on any exercise.

The median effect for Northeastern 13-year-olds was 1.5. Their overall behavior is best described as about the same as the national level. They showed no atypical behaviors.

Sex

The median effects for the boys and girls were -2.6 and 2.6, respectively. The boys' overall behavior was characteristically below the national level while that for the girls was characteristically above. Both boys and girls behaved atypically closer to the national level on two unreleased exercises. Exercise U103 required identification of the antecedent of "their" in a passage; Exercise U115 required identification of the name of a wild game bird. Both boys and girls behaved atypically farther from the national level on three parts (U11805, U11806, and U11807) of a multipart unreleased exercise that required giving one or two words that could mean the same as a key word in a sentence.

Color

Blacks had a median effect of -22.5 and an overall behavior characteristically below the national level. Whites had a median effect of 3.7 and an overall behavior characteristically above the national level. Both Blacks and Whites behaved atypically closer to the national level on released Exercises R106 (zoo sign indicating dangerous animal), R114 (meaning of "certainly" in a sentence), R120 (meaning of "budgetism"), R10403 (difference between ever and never), and R121 (recognize a compound word). Both groups also behaved atypically closer to the national level on two unreleased exercises. Exercise U103 and Exercise U116 that required identifying a sentence which meant the same as a

given sentence. Blacks also behaved atypically closer to the national level on released Exercise R117 that required identifying a group of words that ask a question. Both Blacks and Whites behaved atypically farther from the national level on unreleased Exercise U119 that required naming a simple geometric figure they drew by following a set of directions. Blacks also behaved atypically farther from the national level on two parts (U11805 and U11806) of a multipart unreleased exercise. Whites also behaved atypically farther from the national level on unreleased Exercise U115 that required identification of the name of a wild game bird.

Parental Education[2]

The no-high-school group had a median of -13.7 and an overall behavior characteristically below the national level. However, their behavior was atypically closer to the national level on released Exercises R106 (zoo sign indicating a dangerous animal), R114 (meaning of "certainly" in a sentence), R120 (meaning of "budgetism"), R10403(ever and never), and R121 (compound word). Also, their behavior was atypically farther from the national level on one part of an unreleased exercise (U11805) that required giving one or two words that could mean the same as a key word in a sentence.

With a median effect of -6.3, the some-high-school group's overall behavior was also characteristically below the national level. Their behavior was atypically closer to the national level on unreleased Exercise U103 that required identification of the antecedent of "their" in a passage and on Exercise R10403 (ever and never) and atypically farther from the national level on one part of the unreleased exercise (U11807).

The graduated-from-high-school group had a median effect of 1.3. Their overall behavior tended to be above the national level but their behavior was atypically closer to the national level on one part of an unreleased exercise (U11804).

The median effect for the post-high-school group was 7.0, and their overall behavior was characteristically above the national level. Their behavior was atypically farther from the national level on four parts of an unreleased exercise (U11804, U11805, U11806, and U11807). Their behavior was atypically closer to the national level on unreleased Exercise U103 and on released Exercises R106, R114, R120, R10403, and R121.

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[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

Size and Type of Community[3]

The median effect for the extreme-inner-city group was -9.2, and their overall behavior was characteristically below the national level. Their behavior was not atypical on any exercise.

The extreme-rural group had a median effect of -7.3; their overall behavior tended to be below the national level. Their behavior was atypically closer to the national level on unreleased Exercise U112 that required recognition of how "cache" was used in an exploration story. Their behavior was atypically farther from the national level on one part of an unreleased exercise (U11805).

The median effects for the small-city, medium-city, and rest-of-big-city groups were 0.6, 0.6, and -0.9, respectively. The overall behaviors of these groups are best described as being about the same as the national level. The behavior of the small-city group was atypically high on released Exercise R114 and atypically low on unreleased Exercise U112.

The suburban-fringe and extreme-affluent-suburb groups had median effects of 2.2 and 4.9, respectively. The overall behavior of both groups tended to be above the national level. The suburban-fringe group behaved atypically closer to the national level on released Exercise R114.

* * * * * * * * *

The data for each released exercise representing understanding words and word relationships is presented in the following manner. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 13-year-olds choosing each answer is also shown.

The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. The effects can also be seen

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[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size-and-type-of-community groups.

graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national percentage of success.

Exercises 10401, 10402, 10403 -- Age 13

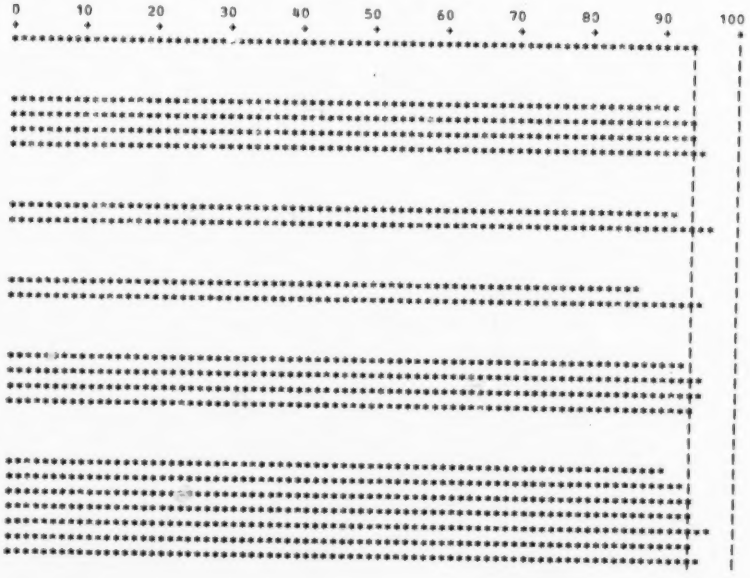
This exercise is analyzed by parts as well as in total.

	Nat'l % Choosing Each Answer	Read the sentences and do what they tell you to do.
10401		⬭ If you have EVER been to the moon, fill in the oval here.
	94.8%	Correct (did not fill in EVER oval).
	5.2%	Incorrect (filled in EVER oval).
10402		⬬ If you have NEVER been to the moon, fill in the oval here.
	96.6%	Correct (filled in NEVER oval).
	3.4%	Incorrect (did not fill in NEVER oval).
10403	93.7%	Both parts correct (did not fill in EVER oval and filled in NEVER oval).
	1.1%	Did not fill in either oval.
	2.9%	Filled in both ovals.
	2.3%	Filled in EVER oval and did not fill in NEVER oval.

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE_____GROUP
93.7	---	NATIONAL
		REGION
91.6	-2.0*	Southeast
94.3	0.6	West
93.8	-0.3	Central
95.3	1.6	Northeast
		SEX
90.7	-3.0*	Male
96.4	2.8*	Female
		COLOR
86.7	-7.0*	Black
95.1	1.4*	White
		PARENTAL EDUCATION
91.9	-1.8	No High School
95.5	1.8	Some High School
94.8	1.1	Graduated High Sch.
94.1	0.5	Post High School
		SIZE-AND-TYPE OF COMMUNITY
89.9	-3.8	Extreme Inner City
92.1	-1.6	Extreme Rural
94.2	0.5	Small City
93.2	-0.5	Medium City
95.7	2.1	Rest Of Big City
93.6	-0.1	Suburban Fringe
95.0	1.4	Extreme Aff Suburb

PERCENTAGE OF SUCCESS



Exercises 10401, 10402, and 10403 -- Age 13

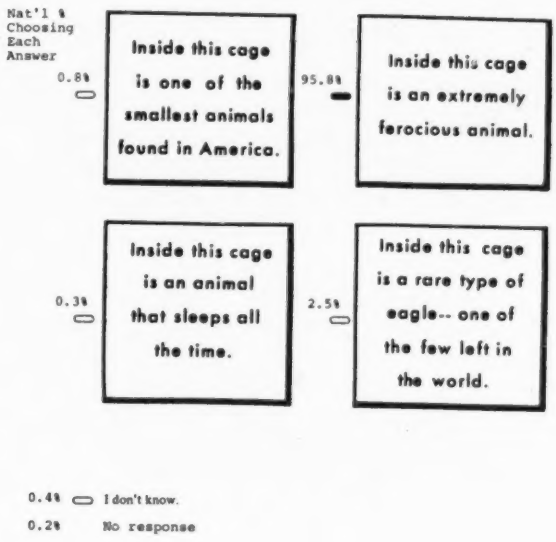
Overlap: Age 9

Objective III: Use what is read.
Subobjective B: Follow written directions.

This exercise required 13-year-olds to discriminate between the positive and negative aspects of EVER and NEVER, and 94% of them responded correctly to both statements. The exhibit on the opposite page relates only to 10403--those who answered both parts correctly. An individual could be scored correct on 10401 if he made no response at all or could be scored correct on 10402 if he filled in both ovals.

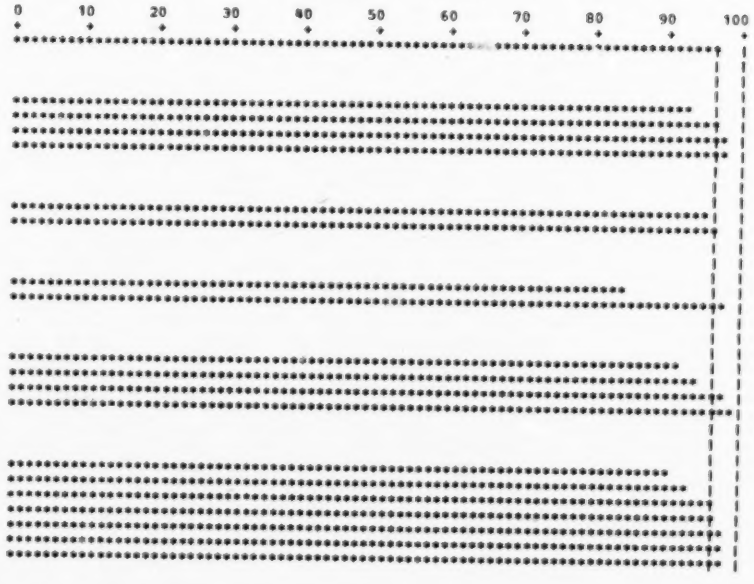
Exercise 106 -- Age 13

People who run zoos sometimes put signs on animal cages to tell what the animals are like or where they come from. If you went to a zoo and saw these four signs on different cages, which one would tell you that there is a dangerous animal inside the cage? Fill in the oval beside the correct sign.



NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP
95.8	---	NATIONAL
		REGION
93.0	-2.8	Southeast
96.1	0.3	West
97.0	1.2	Central
96.9	1.1	Northeast
		SEX
95.2	-0.6	Male
96.4	0.6	Female
		COLOR
84.3	-11.4*	Black
97.8	2.0*	White
		PARENTAL EDUCATION
91.3	-4.5*	No High School
93.4	-2.4	Some High School
97.1	1.3*	Graduated High Sch.
98.4	2.6*	Post High School
		SIZE-AND-TYPE OF COMMUNITY
89.8	-6.0*	Extreme Inner City
91.9	-3.8	Extreme Rural
96.4	0.6	Small City
96.6	0.8	Medium City
97.5	1.8	Rest Of Big City
97.2	1.4	Suburban Fringe
97.1	1.3	Extreme Aff Suburb



Exercise 106 -- Age 13

Overlap: Age 9

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

This exercise required that 13-year-olds know the meaning of "dangerous" and "ferocious." Ninety-six percent of them correctly selected the "ferocious animal" sign.

Exercise 113 -- Age 13

Read the passage and answer the question which follows it.

Sleeky and his mate found their way to Miller's Pond one fall

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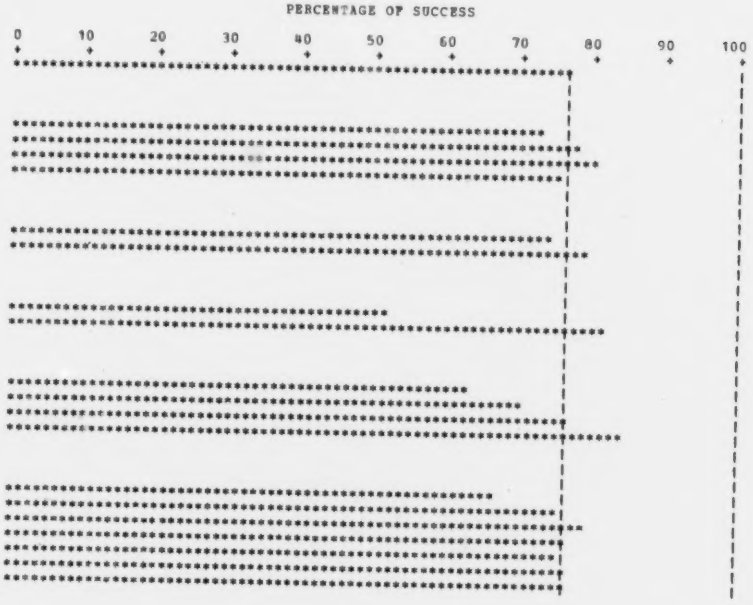
bank. Sleeky got there first.*

Nat'l % Choosing Each Answer	What does chatter mean?	
1.5%	○	Chew wood
5.3%	○	Swim for the pond
2.3%	○	Dive to the bottom
75.3%	●	Talk to one another
9.4%	○	Slap their tails in the water
3.9%	○	I don't know.
1.4%		No response

*Sleeky the Otter, Rhoda Leonard and William S. Briscoe, reprinted by permission of Harr Wagner Publishing Company.

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
76.3	---	NATIONAL	
		REGION	
72.0	-4.3		Southeast
78.1	1.8		West
79.9	3.5*		Central
75.0	-1.3		Northeast
		SEX	
73.6	-2.6*		Male
78.9	2.5*		Female
		COLOR	
50.9	-25.4*		Black
80.8	4.5*		White
		PARENTAL EDUCATION	
62.6	-13.7*		No High School
70.0	-6.3*		Some High School
76.7	0.5		Graduated High Sch.
84.1	7.8*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
66.7	-9.6*		Extreme Inner City
75.0	-1.3		Extreme Rural
79.2	2.9		Small City
76.3	0.1		Medium City
75.1	-1.2		Rest Of Big City
76.4	0.1		Suburban Fringe
76.9	0.5		Extreme Aff Suburb



Exercise 113 -- Age 13

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

Here the 13-year-olds must determine the meaning of "chatter." Even though "chatter" is used in context, it would be difficult to determine the meaning of "chatter" solely from this context. It is quite likely that the 76% of the 13-year-olds who responded correctly had previous experience with "chatter." In fact, without prior knowledge about the meaning of chatter, one could logically choose "slap their tails in the water" as 9% of the 13-year-olds did.

Exercise 114 -- Age 13

Read the sentence and fill in the oval beside the group of words which tells what the sentence means.

Nat'l % Choosing Each Answer	"I certainly won't miss that movie."
8.0%	○ I like that movie.
76.1%	● I'm going to that movie.
7.5%	○ I'm not going to that movie.
5.4%	○ I hope I'll see that movie, but I don't know if I can.
2.0%	○ I didn't see that movie, although it was here all fall.
0.8%	○ I don't know.
0.3%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
76.1	---	NATIONAL	
		REGION	
74.9	-1.3	Southeast	
73.5	-2.6	West	
80.5	4.4*	Central	
74.9	-1.2	Northeast	
		SEX	
72.0	-4.1*	Male	
80.4	4.3*	Female	
		COLOR	
67.6	-8.5*	Black	
77.6	1.5*	White	
		PARENTAL EDUCATION	
74.9	-1.2	No High School	
75.9	-0.2	Some High School	
76.3	0.3	Graduated High Sch.	
78.9	2.8*	Post High School	
		SIZE-AND-TYPE OF COMMUNITY	
69.8	-6.3	Extreme Inner City	
80.0	3.9	Extreme Rural	
81.8	5.8*	Small City	
76.1	-0.0	Medium City	
66.5	-9.6*	Rest Of Big City	
70.8	-5.3*	Suburban Fringe	
75.8	-0.3	Extreme Aff Suburb	

Exercise 114 -- Age 13

Overlap: Age 17

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

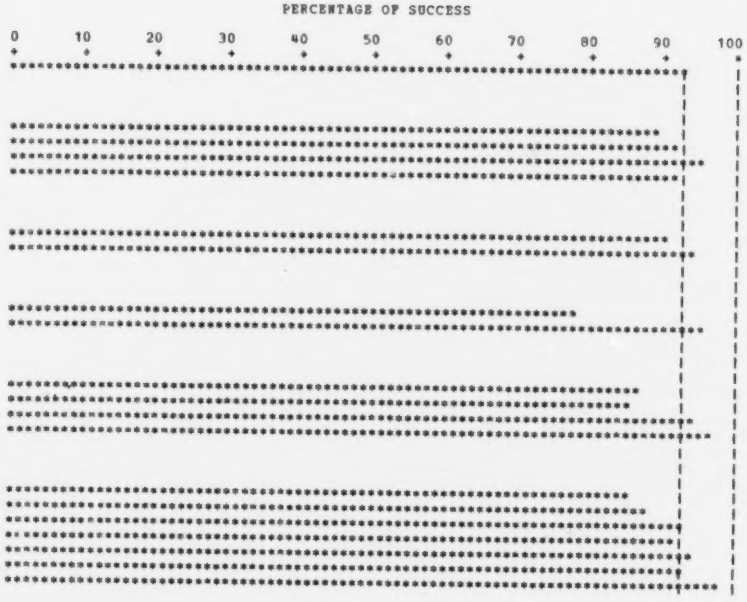
Success on this exercise depends not only on the comprehension of "certainly" but also to some extent on the interpretation of "miss." That is, does one read, "I certainly won't [fail to attend] that movie" or "I certainly won't [feel the absence of] that movie." Seventy-six percent of all 13-year-olds correctly identified "I'm going to that movie." About 8% chose "I'm not going to that movie"--possibly a result of the second interpretation of "miss."

Exercise 117 -- Age 13

Nat'l % Choosing Each Answer	Which of the following asks a question?
0.8%	○ Already the has answer given been
0.8%	○ Been the answer already given has
91.9%	● Has the answer already been given
1.6%	○ Has the given already answer been
2.9%	○ The answer has been given already
0.6%	○ I don't know.
1.4%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
91.9	---	NATIONAL	
		REGION	
88.9	-3.0*		Southeast
91.6	-0.3		West
94.5	2.6		Central
91.6	-0.2		Northeast
		SEX	
89.8	-2.1*		Male
93.9	2.1*		Female
		COLOR	
77.2	-14.7*		Black
98.4	2.6*		White
		PARENTAL EDUCATION	
86.1	-5.8*		No High School
84.5	-7.4*		Some High School
93.5	1.6		Graduated High Sch.
96.0	4.1*		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
85.3	-6.6*		Extreme Inner City
87.4	-4.5		Extreme Rural
92.3	0.4		Small City
91.8	-0.1		Medium City
94.1	2.2		Rest Of Big City
92.0	0.2		Suburban Fringe
97.2	5.3*		Extreme Aff Suburb



Exercise 117 -- Age 13

Overlap: Age 17

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

On this exercise, 13-year-olds must recognize two things. First, three of the five possible answers make no sense. Of the two remaining possibilities, one is a true declarative sentence, and the other (correct) answer is a question. Ninety-two percent of the 13-year-olds chose the correct answer.

Exercise 120 -- Age 13

Read the passage and answer the question.

Suburbanites are not irresponsible. Indeed, what is striking

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is more coveted than luxury itself."

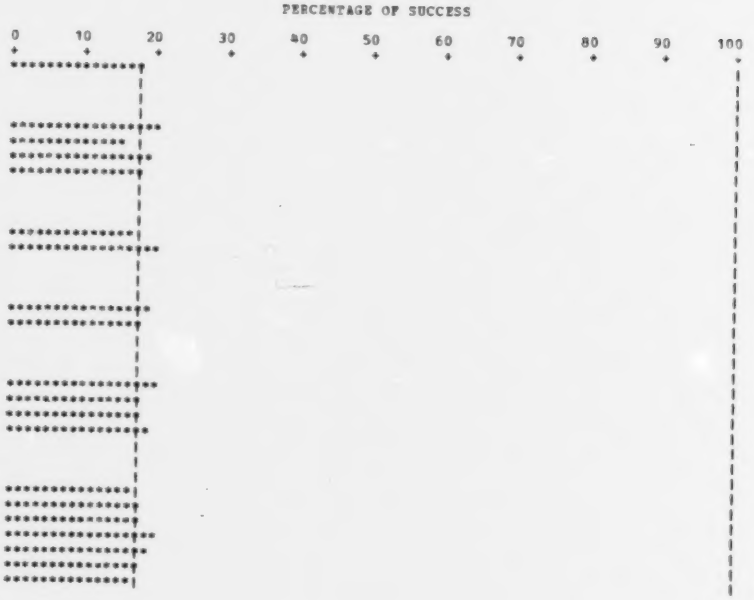
*The Organization Man, William H. Whyte, Jr., reprinted by permission of Doubleday & Co.

How could "budgetism" BEST be defined?

Nat'l % Choosing Each Answer		
6.4%	○	Buying everything on the installment plan
22.9%	○	Keeping careful records of income and outgo
14.5%	○	Deciding in advance how much will be spent each year
31.3%	○	Setting aside a certain amount each month for regular expenses
17.9%	●	Committing almost the entire monthly income to regular payments
6.6%	○	I don't know.
0.4%		No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
17.9	---	NATIONAL	
		REGION	
19.9	2.0		Southeast
15.6	-2.3		West
18.2	0.3		Central
17.9	-0.0		Northeast
		SEX	
15.8	-2.1*		Male
19.7	1.8*		Female
		COLOR	
19.1	0.3		Black
17.9	0.0		White
		PARENTAL EDUCATION	
19.9	2.0		No High School
17.5	-0.3		Some High School
17.6	-0.2		Graduated High Sch.
19.1	1.3		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
15.9	-2.0		Extreme Inner City
17.1	-0.8		Extreme Rural
17.9	0.0		Small City
19.8	1.9		Medium City
19.0	1.2		Rest Of Big City
18.0	0.2		Suburban Fringe
16.5	-1.4		Extreme Aff Suburb



Exercise 120 -- Age 13

Overlap: Age 17, Young Adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

This exercise required 13-year-olds to determine the meaning of a made-up word--"budgetism"--from its contextual use to describe the spending habits of suburbanites, to wit: committing almost the entire monthly income to regular payments. Only 18% of all 13-year-olds answered correctly. Only 7% of them admitted not knowing the correct answer, therefore, the rest either would not admit not knowing, or, in fact, they believed one of the other choices was correct. It is appropriate, therefore, that we carefully examine these choices to determine why they were attractive and why the correct meaning of "budgetism" was elusive.

The first choice,"Buying everything on the installment plan," which attracted 6% of the responses could be interpreted as a meaning of "budgetism" on the face of it. On close examination, however, we note that "installment plan" or even "installment" is never mentioned in the passage. Furthermore, even if one buys everything on the installment plan, one could set aside a certain portion (perhaps large) of the income for savings. "Budgetism" does not allow for this.

The second choice,"Keeping careful records of income and outgo," attracted 23% of the responses. It describes one form of budget; however, keeping careful records of income and outgo does not imply committing the entire income to monthly payments. Those who made this response may have confused "budget" and "budgetism."

The third choice,"Deciding in advance how much will be spent each year," really is "budgeting." The 15% of 13-year-olds who selected this response may have confused "budgeting" and "budgetism."

The fourth choice,"Setting aside a certain amount for regular expenses," agrees with the passage. The last sentence of the second paragraph states "...aim is to have oneself precommitted to regular, unvarying monthly payments..." This response, however, still allows for not committing some of the income, and 31% of 13-year-olds selected this answer.

The fifth and correct choice,"Committing almost the entire monthly income to regular payments" must be gleaned from two parts of the passage: (1) the last sentence in the second paragraph (which could support the fourth choice) gives us "...to have oneself precommitted to regular, unvarying, monthly payments...," but one must go to (2) the fourth sentence in the last paragraph to get "...there are no unappropriated funds..." This plus the fact that "budgetism" is a neologism (made-up word) easily confused with "budget" or "budgeting" which are defined to varying degrees by the incorrect choices gives us one plausible explanation as to why three-fourths of the 13-year-olds were attracted to incorrect meanings of "budgetism."

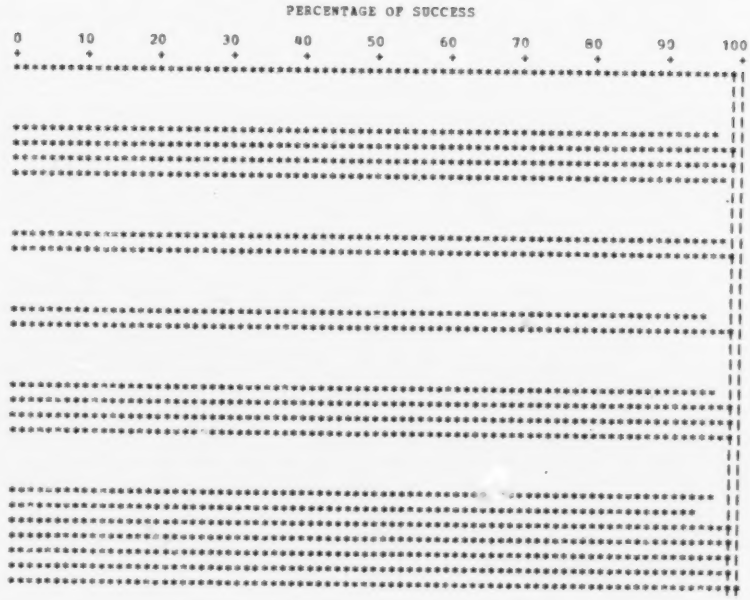
Exercise 121 -- Age 13

A compound word is a word which is made by joining two words together. Fill in the oval beside the compound word.

Nat'l % Choosing Each Answer		
0.4%	○	ACROBAT
98.2%	●	CLASSROOM
0.3%	○	SEPARATE
0.8%	○	SUMMER
0.1%	○	I don't know
0.3%		No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
98.2	---	NATIONAL	
		REGION	
96.8	-1.3		Southeast
99.1	0.9		West
98.6	0.4		Central
98.1	-0.1		Northeast
		SEX	
97.7	-0.5		Male
98.7	0.5		Female
		COLOR	
95.1	-3.0		Black
98.7	0.6*		White
		PARENTAL EDUCATION	
96.7	-1.5		No High School
98.6	0.5		Some High School
98.6	0.4		Graduated High Sch.
98.2	0.0		Post High School
		SIZE-AND-TYPE OF COMMUNITY	
96.0	-2.1		Extreme Inner City
93.8	-4.7*		Extreme Rural
98.9	0.7		Small City
98.9	0.7		Medium City
99.3	1.1*		Rest Of Big City
98.4	0.2		Suburban Fringe
99.9	1.7*		Extreme Aff Suburb



Exercise 121 -- Age 13

Overlap: Age 9

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

This exercise required that 13-year-olds understand how two small words relate to each other to form a larger compound word. Ninety-seven percent of them were able to identify "classroom" as the compound word.

CHAPTER 5

RESULTS FOR AGE 17

The 17-year-olds participating in the 1970-71 Reading assessment fall into two classifications: (1) the "in-school" 17-year-olds and (2) the "out-of-school" 17-year-olds who were not enrolled in public or private schools either because of dropping out or early completion. The latter were included to provide in the assessment a more balanced representation of all 17-year-olds. The "in-school" 17-year-olds participating in the assessment were born between October 1, 1953, and September 30, 1954. About three-fourths of them were enrolled in the eleventh grade; of the remainder, about half were enrolled in the tenth grade and about half in the twelfth grade. The "out-of-school" 17-year-olds who participated in the assessment were (1) not enrolled in public or private school during March, 1970, and were born between October 1, 1952, and September 30, 1953[1] or (2) not enrolled in public or private school during January 1971 and were born between October 1, 1953, and September 30, 1954.

First, we describe each group's overall performance on the Theme 1 exercises, then we indicate those exercises on which the group's performance differs atypically from the group's median level. Finally, we present each released exercise and an exhibit showing the results for each group on that exercise.

Fourteen specific effects (behaviors) on understanding words and word relationships are summarized at age 17. Three of these represent released exercises and are described in detail. The other 11 behaviors represent unreleased exercises to be used in future assessments. Exhibit 5-1 shows the distribution of the 14 effects for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). Each specific behavior is represented by a box with an X (☒) unless it differs atypically from the group's median level; then it is represented by an open box (☐).

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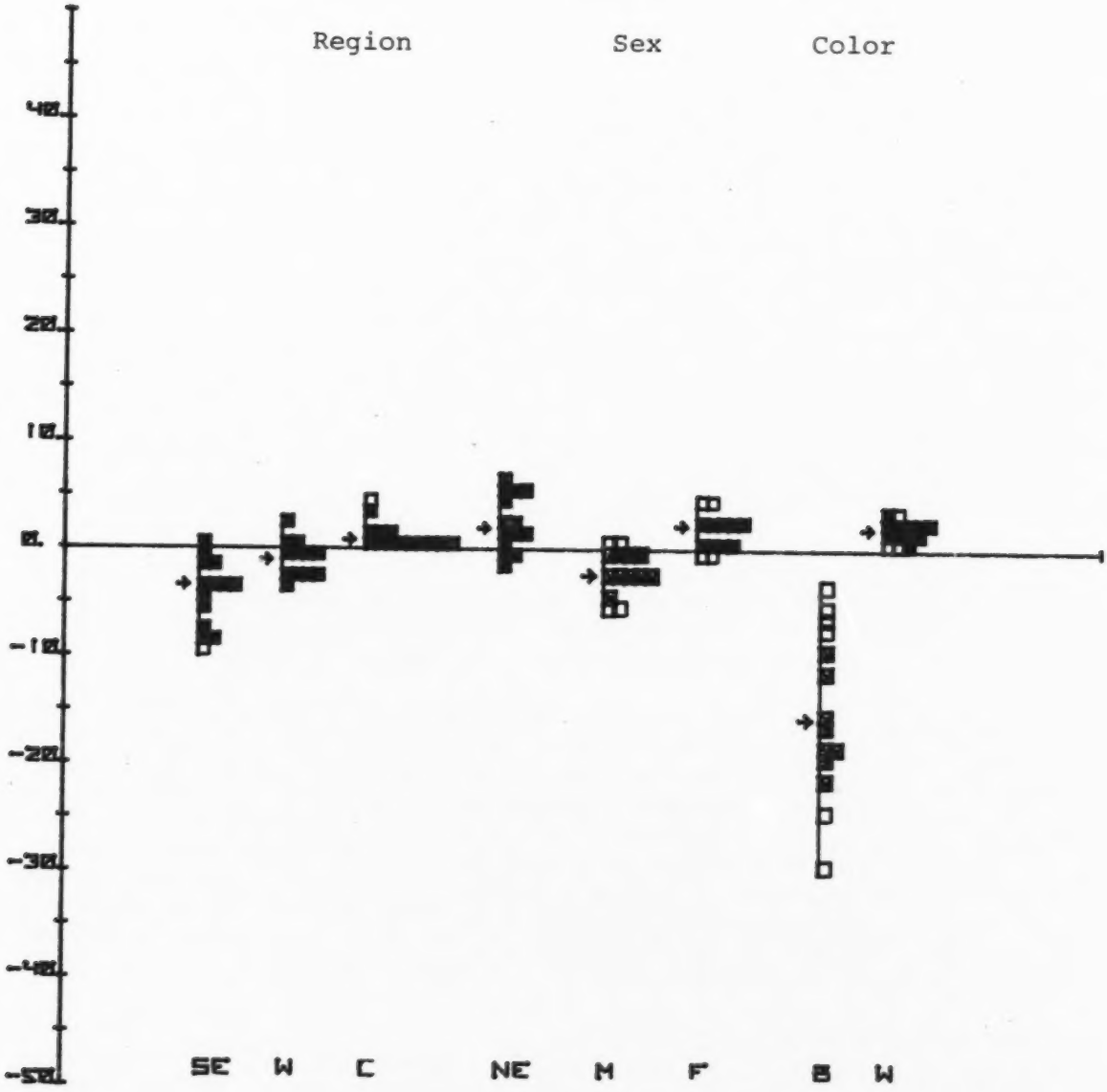
[1]These respondents were actually 18-year-olds who were included in the sample to obtain a larger representation. It was deemed that one year's difference in age would make little difference in the way they responded since they were out of school.

Exhibit 5-1A

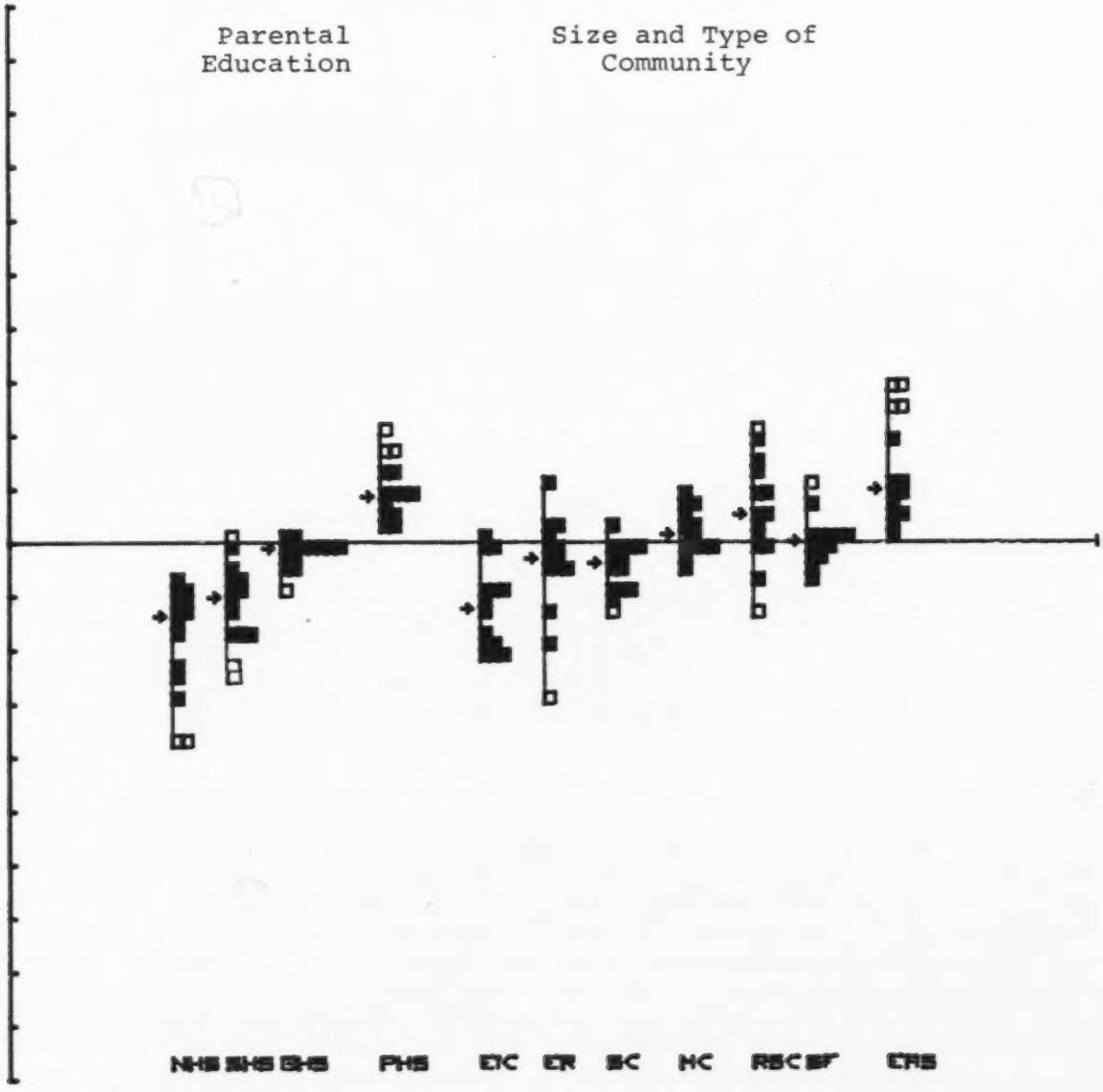
Distributions of Effects for Age 17



	SE	W	C	NE	M	F	B	W
Median Effect	-3.4	-1.1	0.8	1.9	-2.5	2.2	-15.8	2.0

Exhibit 5-1B

Distributions of Effects for Age 17



Median Effect	-6.9	-0.6		-6.2		-2.0		2.5		4.8
		-5.2		4.2		-1.6		0.7	-0.4	

When a group's overall behavior has been described as tending to be above (+) or tending to be below (-), or as characteristically above (++) or below (--) the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[2] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior for that group can be atypically high or low relative to the group's median level.

Region

Southeast 17-year-olds had a median effect of -3.4, and their overall behavior was characteristically below the national level. Their behavior was atypically farther from the national level on one part of an unreleased exercise (U11807) that required giving one or two words that could mean the same as a key word in a sentence.

The median effect for Western 17-year-olds was -1.1; their overall behavior tended to be below the national level. Their overall behavior was not atypical on any exercise.

Central and Northeastern 17-year-olds had median effects of 0.8 and 1.9, respectively. The overall behavior of both groups tended to be above the national level. The Central group had atypical behavior farther from the national level on released Exercise R120 (give the meaning of "budgetism" from its contextual use).

Sex

The median effects for the boys and girls were -2.2 and 2.5, respectively. The overall behavior of the boys was characteristically below the national level while that of the girls was characteristically above. These differences were accentuated by two parts of the unreleased exercise (U11806 and U11807) that required giving a word or two that could mean the same as a key word in a sentence. Boys and girls both behaved atypically farther from the national level. The girls also behaved atypically farther from the national level on released Exercise R114 (give

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[2]An atypical effect (or behavior) described as being closer to the national level may be (1) less extreme in the same direction as a group's tendency or characteristic, or (2) it may occur in the opposite direction from the national level as the group's median level.

the meaning of "certainly" in a sentence). Both boys and girls behaved atypically closer to the national level on two unreleased exercises. Exercise U112 required recognition of how "cache" was used in an exploration story; Exercise U11802 is another part of one requiring a word or two that could mean the same as a key word in a sentence.

Color

Blacks had a median effect of -15.8, and their overall behavior was characteristically below the national level. Whites had a median effect of 2.0, and their overall behavior was characteristically above the national level. The behavior of both Blacks and Whites were atypically closer to the national level on released Exercise R117 (which of several groups of words is a sentence) and unreleased Exercise U107 that required recognizing a use of a microscope. The behavior of Blacks was also atypically closer to the national level on released Exercise R114 and unreleased Exercise U116 that required recognizing another way a sentence could be written. Both Blacks and Whites behaved farther from the national level on one part of an unreleased exercise (U11807). Blacks also behaved atypically farther from the national level on another part of the same exercise (U11804).

Parental Education[3]

The no-high-school and some-high-school groups had median effects of -6.9 and -5.2, respectively. The overall behavior of both groups was characteristically below the national level. The no-high-school group had behavior atypically farther from the national level on two parts of the unreleased exercise (U11803 and U11807). The some-high-school group behaved atypically farther from the national level on two unreleased exercises. Exercise U103 required identification of the antecedent of "their" in a passage; Exercise U112 required recognition of how "cache" was used in an exploration story. However, they behaved atypically closer to the national level on unreleased Exercise U116.

The median effect for the graduated-from-high-school group was -0.6; their overall behavior tended to be below the national level. However, their behavior was atypically farther from the national level on unreleased Exercise U103.

The post-high-school group had a median effect of 4.2, and their overall behavior was characteristically above the national

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[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education group.

level. However, their behavior was atypically farther from the national level on unreleased Exercise U103 and on two parts of the unreleased exercise (U11803 and U11804) that required giving a word or two that could mean the same as a key word in a sentence.

Size and Type of Community (In-school only)[4]

The extreme-inner-city and small-city groups had median effects of -6.2 and -2.0, respectively. Despite the difference between these medians, the overall behavior of both groups was characteristically below the national level. The inner-city group had no atypical behaviors, but the small-city group behaved atypically farther from the national level on one part of the unreleased exercise (U11807).

The extreme-rural (median effect, -1.6), medium-city (medium effect, 0.7), rest-of-big-city (median effect, 2.5), and suburban-fringe (median effect, 0.0) groups all had an overall behavior that is best described as being about the same as the national level. The extreme-rural group behaved atypically low on one part of unreleased exercise (U11803). The medium-city group had no atypical behaviors. The rest-of-big-city group behaved atypically high on one part of unreleased Exercise U11803 and atypically low on released Exercise R120 (give the meaning of "budgetism" from its contextual use). The suburban fringe behaved atypically high on Exercise R120.

The extreme-affluent-suburb group had a median effect of 4.8 and an overall behavior characteristically above the national level. They behaved atypically farther from the national level on three parts of unreleased Exercises U11803, U11804, U11807 and U103.

* * * * * * * * *

The data for each released exercise representing understanding words and word relationships is presented as follows. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of 17-year-olds choosing each answer is also shown.

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[4]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size-and-type-of-community groups.

The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. The effects can also be seen graphically. Note the vertical dashed line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national percentage of success.

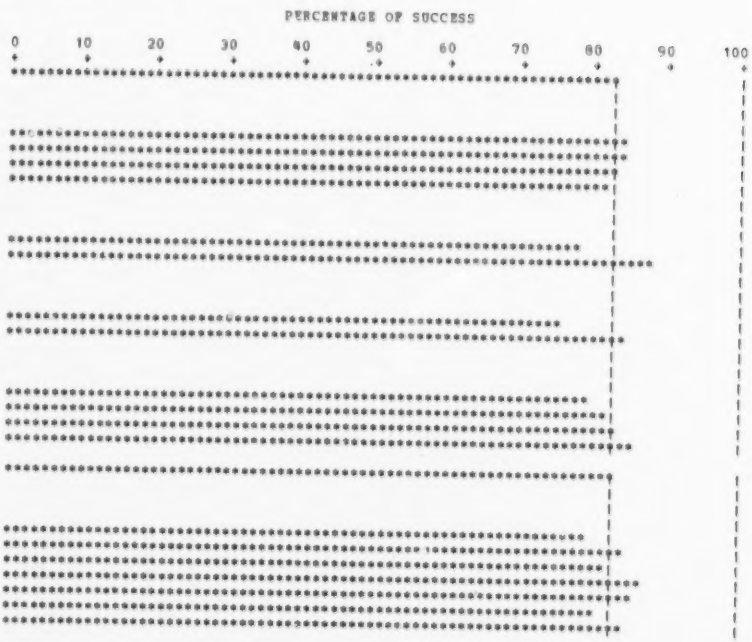
Exercise 114 -- Age 17

Read the sentence and fill in the oval beside the group of words which tells what the sentence means.

Nat'l % Choosing Each Answer	"I certainly won't miss that movie."
3.9%	○ I like that movie.
82.6%	● I'm going to that movie.
7.4%	○ I'm not going to that movie.
3.0%	○ I hope I'll see that movie, but I don't know if I can.
2.3%	○ I didn't see that movie, although it was here all fall.
0.6%	○ I don't know.
0.3%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE_____GROUP
82.6	---	NATIONAL
		REGION
83.2	0.6	Southeast
83.3	0.7	West
82.7	0.1	Central
81.4	-1.3	Northeast
		SEX
78.1	-4.6*	Male
87.2	4.6*	Female
		COLOR
75.2	-7.4*	Black
83.8	1.2*	White
		PARENTAL EDUCATION
79.3	-3.3	No High School
80.7	-2.0	Some High School
82.1	-0.5	Graduated High Sch.
85.5	2.9*	Post High School
82.6	---	NATIONAL(17IS ONLY)
		SIZE-AND-TYPE OF COMMUNITY
78.3	-4.3	Extreme Inner City
83.9	1.3	Extreme Rural
81.0	-1.6	Small City
86.8	4.2*	Medium City
85.0	2.4	Rest Of Big City
80.2	-2.5	Suburban Fringe
83.9	1.3	Extreme Aff Suburb



Exercise 114 -- Age 17

Overlap: Age 13

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

Success on this exercise depends not only on the comprehension of "certainly" but also to some extent on the interpretation of "miss." That is, does one read, "I certainly won't [fail to attend] that movie" or "I certainly won't [feel the absence of] that movie." Eighty-three percent of all 17-year-olds correctly identified "I'm going to that movie." About 7% chose, "I'm not going to that movie"--possibly a result of the second interpretation of "miss."

Exercise 117 -- Age 17

Nat'l % Choosing Each Answer	Which of the following asks a question?
0.3%	○ Already the has answer given been
0.2%	○ Been the answer already given has
95.9%	● Has the answer already been given
1.0%	○ Has the given already answer been
1.3%	○ The answer has been given already
0.6%	○ I don't know.
0.7%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE GROUP	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
95.9	---	NATIONAL	**********
		REGION	
93.0	-3.0*	Southeast	**********
96.3	0.4	West	**********
96.7	0.8	Central	**********
96.8	0.9	Northeast	**********
		SEX	
95.4	-0.5	Male	**********
96.4	0.5	Female	**********
		COLOR	
90.6	-5.4*	Black	**********
96.6	0.6*	White	**********
		PARENTAL EDUCATION	
91.3	-4.7*	No High School	**********
92.4	-3.6*	Some High School	**********
96.7	0.7	Graduated High Sch.	**********
97.9	2.0*	Post High School	**********
96.4	---	NATIONAL(17IS ONLY)	**********
		SIZE-AND-TYPE OF COMMUNITY	
96.7	0.3	Extreme Inner City	**********
93.7	-2.7	Extreme Rural	**********
96.1	-0.4	Small City	**********
97.0	0.6	Medium City	**********
95.5	-0.9	Rest Of Big City	**********
96.7	0.3	Suburban Fringe	**********
98.5	2.0*	Extreme Aff Suburb	**********

Exercise 117 -- Age 17

Overlap: Age 13

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

On this exercise, 17-year-olds must recognize two things. First, three of the five possible answers have word orders that make no sense. Of the two remaining possibilities, one is a true declarative sentence and the other (correct) answer is a question. Ninety-six percent of all 17-year-olds chose the correct answer.

Exercise 120 -- Age 17

Read the passage and answer the question.

Suburbanites are not irresponsible. Indeed, what is striking about the young couples' march along the abyss is the earnestness and precision with which they go about it. They are extremely budget-conscious. They can rattle off most of their monthly payments down to the last penny; one might say that even their impulse buying is deliberately planned. They are conscientious in meeting obligations, and rarely do they fall delinquent in their accounts.

They are exponents of what could be called budgetism. This does not mean that they actually keep formal budgets--quite the contrary. The beauty of budgetism is that one doesn't have to keep a budget at all. It's done automatically. In the new middle-class rhythm of life, obligations are homogenized, for the over-riding aim is to have oneself precommitted to regular, unvarying monthly payments on all the major items.

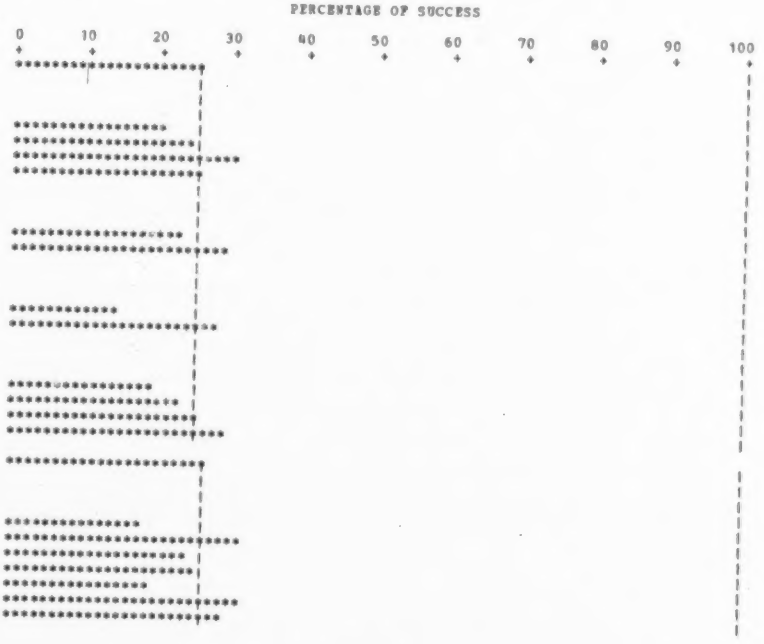
Americans used to be divided into three sizable groups: those who thought of money obligations in terms of the week, of the month, and of the year. Many people remain at both ends of the scale, but with the widening of the middle class, the mortgage payments are firmly geared to a thirty-day cycle, and any dissonant peaks and valleys are anathema. Just as young couples are now paying winter fuel bills in equal monthly fractions through the year, so they seek to spread out all the other heavy seasonal obligations they can anticipate. If vendors will not oblige by accepting equal monthly installments, the purchasers will smooth out the load themselves by floating loans.

It is, suburbanites cheerfully explain, a matter of psychology. They don't trust themselves. In self-entrapment is security. They try to budget so tightly that there are no unappropriated funds, for they know these would burn a hole in their pocket. Not merely out of greed for goods, then, do they commit themselves; it is protection they want, too. And though it would be extreme to say that they go into debt to be secure, carefully charted debt does give them a certain peace of mind--and in suburbia this is more coveted than luxury itself.

Nat'l % Choosing Each Answer	How could "budgetism" BEST be defined?
7.5%	○ Buying everything on the installment plan
19.7%	○ Keeping careful records of income and outgo
10.9%	○ Deciding in advance how much will be spent each year
31.2%	○ Setting aside a certain amount each month for regular expenses
25.3%	● Committing almost the entire monthly income to regular payments
4.4%	○ I don't know
1.0%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
25.3	---	NATIONAL	
		REGION	
20.6	-4.8*		Southeast
23.3	-2.0		West
30.3	4.9*		Central
25.2	-0.1		Northeast
		SEX	
22.7	-2.6*		Male
28.2	2.9*		Female
		COLOR	
14.1	-11.2*		Black
26.9	1.6*		White
		PARENTAL EDUCATION	
18.3	-7.0*		No High School
21.9	-3.5		Some High School
24.8	-0.6		Graduated High Sch.
29.4	4.0*		Post High School
25.8	---	NATIONAL(17IS ONLY)	
		SIZE-AND-TYPE OF COMMUNITY	
16.9	-8.8*		Extreme Inner City
31.1	5.3		Extreme Rural
23.2	-2.6		Small City
25.6	-0.2		Medium City
19.1	-6.6		Rest Of Big City
31.2	5.5		Suburban Fringe
28.6	2.8		Extreme Aff Suburb



Exercise 120 -- Age 17

Overlap: Age 13, Young Adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

This exercise required 17-year-olds to determine the meaning of a made-up word--"budgetism"--from its contextual use to describe the spending habits of suburbanites, to wit: committing almost the entire monthly income to regular payments. Only 25% of all 17-year-olds chose the correct answer, and only 4% of them admitted not knowing the correct answer. Therefore, the rest either would not admit not knowing, or in fact, they believed one of the other choices was correct. It is appropriate, therefore, that we carefully examine these choices to determine why they were attracted and why the correct meaning of "budgetism" was allusive.

The first choice, "Buying everything on the installment plan," which attracted 8% of the responses, could be interpreted as a meaning of "budgetism" on the face of it. On close examination, however, we note that neither "installment plan" nor "installment" is mentioned in the passage. Furthermore, even if one buys everything on the installment plan, one could set aside a certain portion (perhaps large) of the income for savings. "Budgetism" does not allow for this.

The second choice, "Keeping careful records of income and outgo," attracted 20% of the responses. It describes one form of budget; however, keeping careful records of income and outgo does not imply committing the entire income to monthly payments. Those who made this response may have confused "budget" and "budgetism."

The third choice, "Deciding in advance how much will be spent each year," really is "budgeting." The 11% of 17-year-olds who selected this response may have confused "budgeting" and "budgetism."

The fourth choice, "Setting aside a certain amount for regular expenses," agrees with the passage. The last sentence of the second paragraph states "...aim is to have oneself precommitted to regular, unvarying monthly payments..." This response, selected by 31% of all 17-year-olds, still allows for not committing some of this income.

The fifth and correct choice, "Committing almost the entire monthly income to regular payments," must be gleaned from <u>two</u> parts

of the passage: (1) the last sentence in the second paragraph (which could support the fourth choice) gives us "...to have oneself precommitted to regular, unvarying, monthly payments...," but one must go to (2) the fourth sentence in the last paragraph to get "...there are no unappropriated funds..." This plus the fact that "budgetism" is a neologism (made-up word) easily confused with "budget" or "budgeting" which are defined to varying degrees by the incorrect choices gives us one plausible explanation as to why 70% of the 17-year-olds were attracted to incorrect meanings of "budgetism."

CHAPTER 6

RESULTS FOR YOUNG ADULTS

The young adults (ages 26-35) participating in the 1970-71 Reading assessment were born between April 1, 1935 and March 31, 1945.

First, we describe each group's overall performance on the Theme 1 exercises, then we indicate those exercises on which the group's performance differs atypically from the group's median level. Finally, we present each released exercise and an exhibit showing the results for each group on that exercise.

Eight specific effects (behaviors) on understanding words and word relationships are summarized at the young adult level. Seven of them represent the parts of a multipart unreleased exercise. Therefore, only one specific behavior for the young adults is described in detail. Exhibit 6-1 shows the distribution of the eight behaviors for each group relative to the national level indicated by the Ø line. A group's median level is indicated by an arrow (→). Each specific behavior is represented by a box with an X (☒) unless it differs atypically from the group's median level; then it is represented by an open box (☐).

When a group's overall behavior has been described as tending to be above (+) or tending to be below (-) or as characteristically above (++) or characteristically below (--) the national level, a specific behavior for that group can be: (1) atypically farther from the national level than is the group's median level or (2) atypically closer to[1] the national level.

When a group's overall behavior has been described as being about the same as the national level, a specific behavior can be atypically high or low relative to the group's median level.

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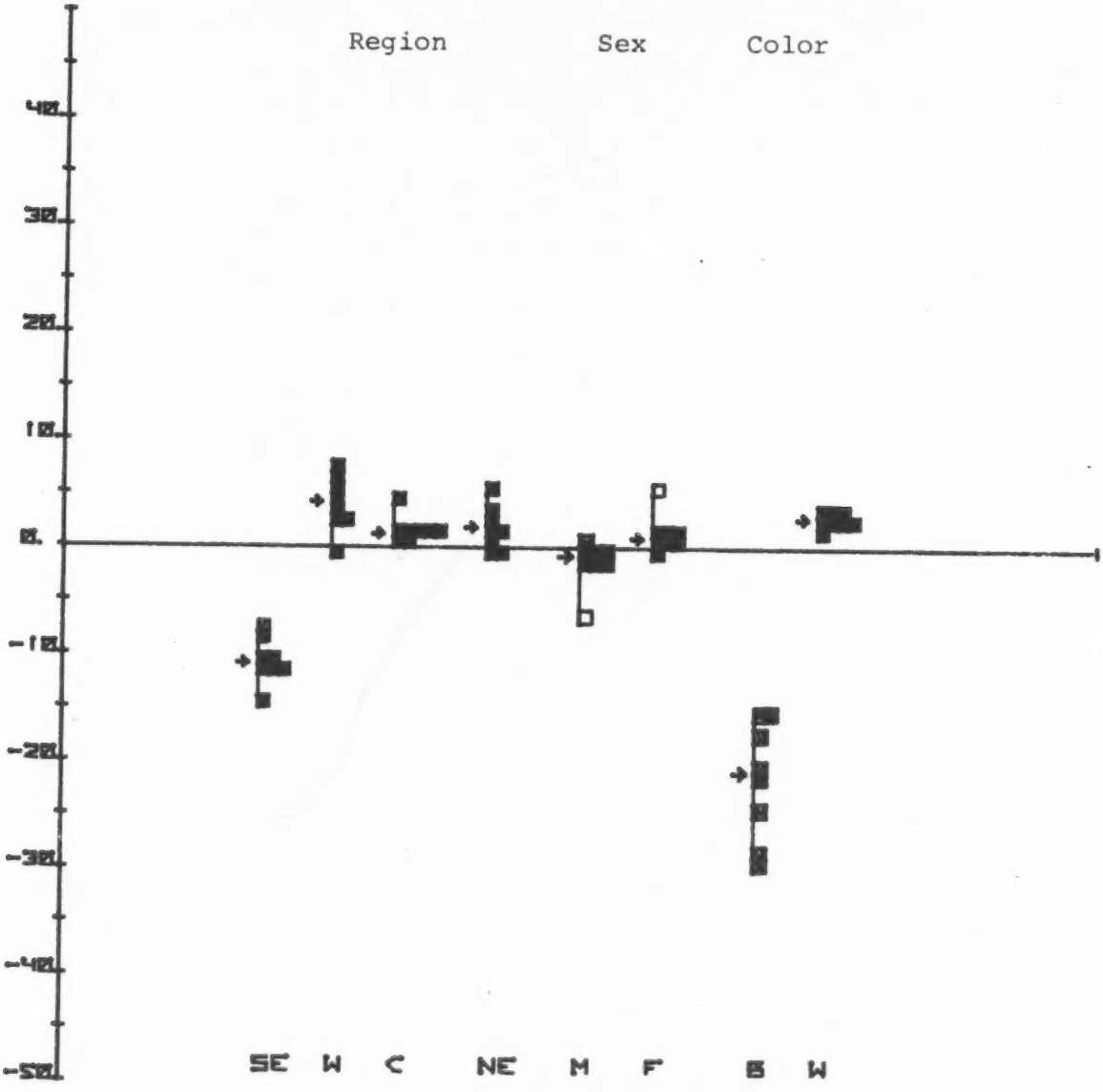
[1]An atypical effect (or behavior) described as being closer to the national level may be (1) less extreme in the same direction as a group's tendency or characteristic, or (2) it may occur in the opposite direction from the national level as the group's median level.

Exhibit 6-1A

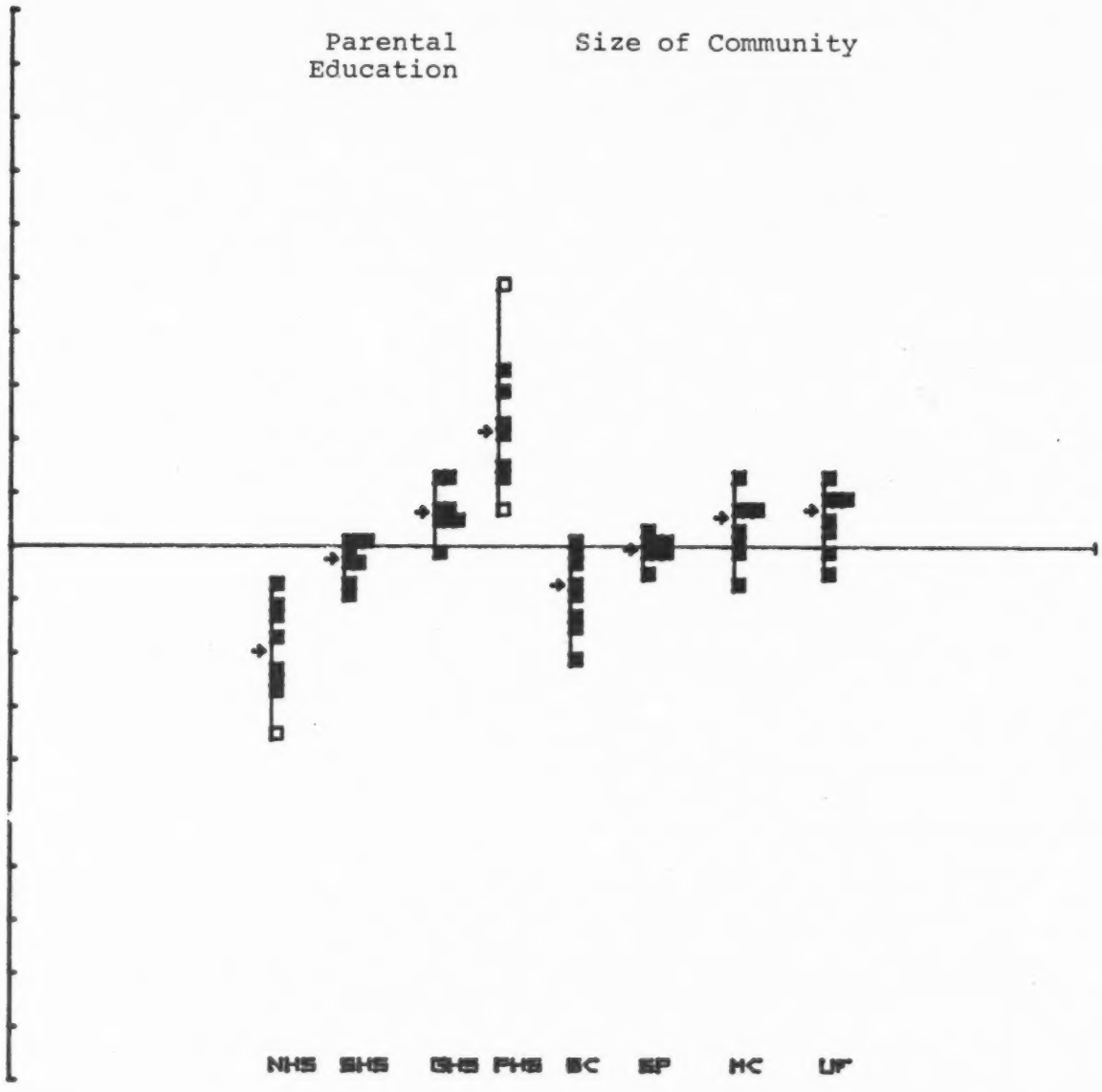
Distributions of Effects for Young Adults



	SE	W	C	NE	M	F	B	W
Median Effect	-10.9		1.3		-0.9		-21.1	
		4.2		1.9		0.9		2.7

Exhibit 6-1B

Distributions of Effects for Young Adults



	NHS	SHS	CHS	FHS	BC	EP	MC	UP
Median Effect	-9.9	-1.2	3.2	10.8	-3.6	-0.3	2.7	3.5

Region

Southeastern young adults had a median effect of -10.9 and an overall behavior characteristically below the national level. They did not behave atypically on any exercise.

Western and Central young adults had median effects of 4.2 and 1.3. The overall behavior of both groups tended to be above the national level. Neither group behaved atypically on any exercise.

The median effect for Northeastern young adults was 1.9. Their overall behavior tended to be about the same as the national level. They did not behave atypically on any exercise.

Sex

The men had a median effect of -0.9 and an overall behavior tending to be below the national level while the women had a median effect of 0.9 and an overall behavior tending to be above the national level. Both men and women behaved atypically farther from the national level on one part of the unreleased exercise (U11802) that required a word or two that could mean the same as a key word in a sentence.

Color

With a median effect of -21.1, Black young adults had an overall behavior characteristically below the national level. White young adults had a median effect of 2.1 and an overall behavior characteristically above the national level. Neither group behaved atypically on any exercise.

Parental Education[2]

Young adults in the no-high-school group had a median effect of -9.9 and an overall behavior characteristically below the national level. Their behavior was atypically farther below the national level on released Exercise R120 that required giving a meaning of "budgetism" from its contextual use.

The some-high-school group had a median effect of -1.2 and an overall behavior about the same as the national level. They did not behave atypically on any exercise.

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[2]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the parental education groups.

The graduated-from-high-school group had a median effect of 3.2 and an overall behavior tending to be above the national level. They had no atypical behaviors.

Young adults in the post-high-school group had a median effect of 10.8 and an overall behavior characteristically above the national level. They behaved atypically farther above the national level on released Exercise R120, but they behaved atypically closer to the national level on one part of the unreleased exercise (U11806) that required a word or two that could mean the same as a key word in a sentence.

Size of Community[3]

Young adults in the big-city groups had a median effect of -3.6 and an overall behavior tending to be below the national level. Those in the small-city group had a median effect of -0.3 and an overall behavior tending to be about the same as the national level. Medium-city and urban-fringe adults had median effects of 2.7 and 3.5, respectively. The overall behavior of both groups was characteristically above the national level. None of the size-of-community groups behaved atypically on any exercise.

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The data for the one released exercise representing understanding words and word relationships is presented as follows. The upper part of the page shows the exercise number, age level, and the objective and major subobjective of the exercise. Then the exercise is shown exactly as it appeared to the respondent except here the correct choice is marked. The percentage of young adults choosing each answer is also shown. The exhibit on the lower part of the page shows the national percentage of success and the percentage of success for each group both tabularly (leftmost column of figures) and graphically (horizontal bars). The second column of figures on the left side of the exhibit shows the effects for all groups with asterisks (*) indicating those that are reliable. The effects can also be seen graphically. Note the dashed vertical line descending from the end of the national percentage bar. This allows a visual comparison of each group percentage of success with the national percentage of success.

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[3]See the General Information Yearbook, Chapter 3 (Report 02-GIY) for definitions of the size of community groups.

Exercise 120 -- Adult

Read the passage and answer the question.

Suburbanites are not irresponsible. Indeed, what is striking about the young couples' march along the abyss is the earnestness and precision with which they go about it. They are extremely budget-conscious. They can rattle off most of their monthly payments down to the last penny; one might say that even their impulse buying is deliberately planned. They are conscientious in meeting obligations, and rarely do they fall delinquent in their accounts.

They are exponents of what could be called budgetism. This does not mean that they actually keep formal budgets--quite the contrary. The beauty of budgetism is that one doesn't have to keep a budget at all. It's done automatically. In the new middle-class rhythm of life, obligations are homogenized, for the over-riding aim is to have oneself precommitted to regular, unvarying monthly payments on all the major items.

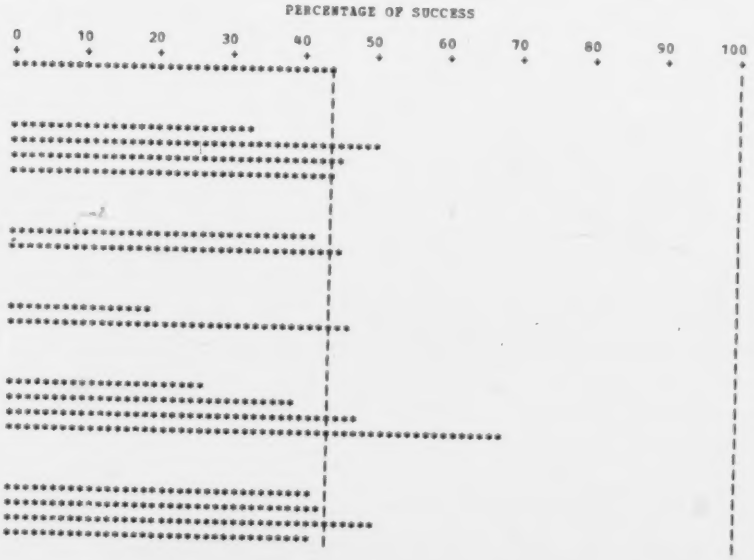
Americans used to be divided into three sizable groups: those who thought of money obligations in terms of the week, of the month, and of the year. Many people remain at both ends of the scale, but with the widening of the middle class, the mortgage payments are firmly geared to a thirty-day cycle, and any dissonant peaks and valleys are anathema. Just as young couples are now paying winter fuel bills in equal monthly fractions through the year, so they seek to spread out all the other heavy seasonal obligations they can anticipate. If vendors will not oblige by accepting equal monthly installments, the purchasers will smooth out the load themselves by floating loans.

It is, suburbanites cheerfully explain, a matter of psychology. They don't trust themselves. In self-entrapment is security. They try to budget so tightly that there are no unappropriated funds, for they know these would burn a hole in their pocket. Not merely out of greed for goods, then, do they commit themselves; it is protection they want, too. And though it would be extreme to say that they go into debt to be secure, carefully charted debt does give them a certain peace of mind--and in suburbia this is more coveted than luxury itself.

Nat'l % Choosing Each Answer	How could "budgetism" BEST be defined?
6.5%	○ Buying everything on the installment plan
19.3%	○ Keeping careful records of income and outgo
5.8%	○ Deciding in advance how much will be spent each year
21.5%	○ Setting aside a certain amount each month for regular expenses
43.4%	● Committing almost the entire monthly income to regular payments
2.5%	○ I don't know.
0.9%	No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

% OF SUCCESS	GROUP EFFECT	VARIABLE	GROUP
43.4	---	NATIONAL	
		REGION	
32.7	-10.7*		Southeast
50.5	7.1*		West
44.5	1.1		Central
43.3	-0.1		Northeast
		SEX	
41.6	-1.8		Male
45.1	1.7		Female
		COLOR	
19.0	-24.4*		Black
46.7	3.3*		White
		PARENTAL EDUCATION	
25.8	-17.6*		No High School
39.1	-4.3		Some High School
46.9	3.5		Graduated High Sch.
67.7	24.3*		Post High School
		SIZE OF COMMUNITY	
41.7	-1.7		Big City
42.8	-0.6		Small Place
49.9	6.5		Medium City
40.8	-2.6		Urban Fringe



Exercise 120 -- Adult

Overlap: Ages 13 and 17

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

This exercise required the reader to determine the meaning of a made-up word--"budgetism"--from its contextual use to describe the spending habits of suburbanites, to wit: committing almost the entire monthly income to regular payments. About 43% of all adults were able to select the correct meaning of "budgetism."

While a moderate percentage of young adults selected the correct meaning of budgetism, an ever larger percentage of them (53%) selected one of the incorrect choices, and 3% either responded "I don't know" or made no response. It is appropriate, therefore, that we carefully examine these choices to determine why they were attractive and why the correct meaning of "budgetism" was allusive.

The first choice, "Buying everything on the installment plan," which attracted 7% of the responses, could be interpreted as a meaning of "budgetism" on the face of it. On close examination, however, we note that "installment plan" or even "installment" is never mentioned in the passage. Furthermore, even if one buys everything on the installment plan, one could set aside a portion (perhaps large) of the income for savings. "Budgetism" does not allow for this.

The second choice, "Keeping careful records of income and outgo," attracted 19% of the responses. It describes one form of budget; however, keeping careful records of income and outgo does not imply committing the entire income to monthly payments or any portion of the income for that matter. Adults who made this response may have confused "budget" with "budgetism."

The third choice, "Deciding in advance how much will be spent each year," really is "budgeting" and the 6% of adults who selected this response may have confused "budgeting" with "budgetism."

The fourth choice, "Setting aside a certain amount for regular expenses," agrees with the passage. The last sentence of the second paragraph states "...aim is to have oneself precommitted to regular, unvarying monthly payments..." This response, however, still allows for not committing some of the income, i.e., savings, and 22% of adults selected this choice.

The fifth and correct choice, "Committing almost the entire monthly income to regular payments," must be gleaned from two parts of the passage: (1) the last sentence in the second paragraph (which could support the fourth choice) gives us "...to have oneself precommitted to regular, unvarying monthly payments...," but one must go to (2) the fourth sentence in the last paragraph to get "...there are no unappropriated funds..." This plus the fact that "budgetism" is a neologism easily confused with "budget" or "budgeting," which are defined to varying degrees by the incorrect choices, gives us one plausible explanation as to why more than half of the young adults failed to determine the correct meaning of "budgetism."

CHAPTER 7

AGE COMPARISONS

In Chapters 3-6, our concern has been with comparing the percentage of success for each group with the national percentage of success within each age level. When an exercise has been administered at more than one age level, we can compare the percentage of success for a given group at one age level with that group's percentage(s) of success at the other age level(s) and determine the percentage increase or percentage decrease between one age level and the next higher age level. We can also determine the overall or net percentage increase or percentage decrease between the lowest age level and the highest age level when more than two age levels are involved.

We compare the percentages of success for 9-, 13-, and 17-year-olds and young adults (26-35) all obtained at the time of the 1970-71 assessment. Therefore, we are not justified in assuming that four years later the 9-year-olds (for example), when they are 13-year-olds, would necessarily attain the same percentages of success as the 13-year-olds in the 1970-71 assessment. Likewise, we are not justified in assuming that four years earlier the 13-year-olds, when they were 9-year-olds, would have necessarily attained the same percentages of success as the 9-year-olds in the 1970-71 assessment. This is because the experiences between age 9 and age 13 could be quite different for the 9-year-olds and 13-year-olds in the 1970-71 assessment. These statements generalize to the comparisons we make between any two age levels.

For each exercise, an exhibit shows the percentage of success for each group at the relevant age levels and the percentage difference between each adjacent pair of age levels and (when applicable) the percentage difference between the lowest age level and the highest age level. For example, look at the Northeast region at ages 13, 17, and adult for Exercise 120.

	Age Level	Percentage of Success		Percentage Difference
Northeast	13	17.9		
	17	25.2	13→17	7.4
	Ad.	43.3	17→Ad.	18.1
			13→Ad.	25.5

We see that the percentage of success for the 13-year-olds is 17.9 and for the 17-year-olds is 25.2 with a percentage difference going from age 13 to age 17 of 7.4. We likewise see that the percentage of success for the adults is 43.3 with a percentage difference going from age 17 to adult of 18.1. The overall percentage difference going from age 13 to adult is 25.5. When a percentage decrease occurs, it is indicated by a minus sign (-). The bars on the graph portion of the exhibit also indicate the percentages of success for the groups at each age level. A dashed vertical line descends from the end of each national percentage bar. This allows a visual comparison of a group's position relative to the national level from age level to age level.

Some special note should be made of the white space between the end of each bar and the 100% vertical line. This white space represents the percentages of individuals who did not succeed on an exercise at each age level. This white space or percentage of failure must be taken into account when we consider the percentage increase from one age level to the next. Consider the following examples.

1. If the percentage of success for a group at age 9 is 20 and the percentage of success for that group at age 13 is 50, the percentage increase is 30. On the face of it, this seems to be a reasonably large increase, but 50% of the 13-year-olds still failed.

2. If the percentage of success for a group at age 9 is 95 and the percentage of success for that group at age 13 is 99.5, the percentage increase is 4.5. On the face of it, this seems to be a small increase. However, only 5% of the 9-year-olds failed, therefore there could not be a large increase going to age 13.

Another consideration must be made when we look at the percentage increase from one age level to the next. The exercise may be difficult for both age levels under consideration, in which case, we would expect a small or no percentage increase.

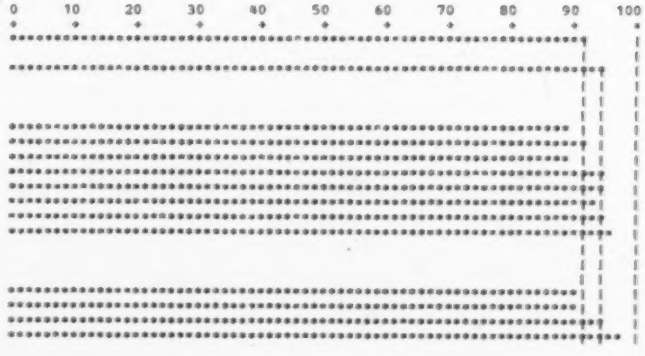
Of the released exercises representing understanding words and word relationships, three were administered to both 9- and 13-year-olds; two were administered to both 13- and 17-year-olds; and one was administered to 13- and 17-year-olds and young adults. With very few exceptions, a given age level attained a higher percentage of success than the next lower age level.

Exercise 10403

Nat'l % Choosing Each Answer		
Age 9	Age 13	
		Read the sentences and do what they tell you to do.
		⬭ If you have EVER been to the moon, fill in the oval here.
		⬬ If you have NEVER been to the moon, fill in the oval here.
91.6%	93.7%	Both parts correct (did not fill in EVER oval and filled in NEVER oval).
1.3%	1.1%	Did not fill in either oval.
1.9%	2.9%	Filled in both ovals.
5.2%	2.3%	Filled in EVER oval and did not fill in NEVER oval.

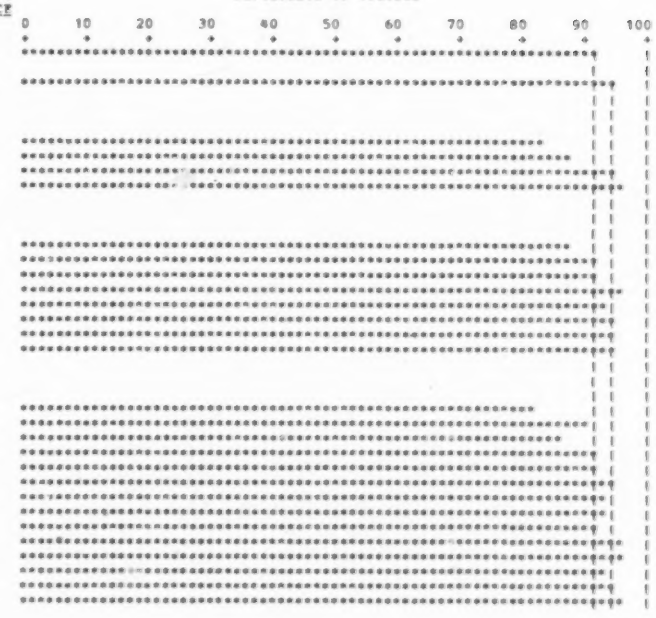
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	9	91.6		
	NATIONAL	13	93.7	9-->13	2.1
REGION					
	Southeast	9	88.7		
		13	91.6	9-->13	2.9
	West	9	88.1		
		13	98.3	9-->13	6.2
	Central	9	94.1		
		13	93.4	9-->13	-0.7
	Northeast	9	93.9		
		13	95.3	9-->13	1.4
SEX					
	Male	9	89.6		
		13	90.7	9-->13	1.0
	Female	9	93.6		
		13	96.4	9-->13	2.9



NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	9	91.6		
NATIONAL	13	93.7	9-->13	2.1
COLOR				
Black	9	82.7		
	13	86.7	9-->13	4.0
White	9	93.6		
	13	95.1	9-->13	1.5
PARENTAL EDUCATION				
No High School	9	86.7		
	13	91.9	9-->13	5.2
Some High School	9	91.7		
	13	95.5	9-->13	3.8
Graduated High Sch.	9	93.6		
	13	94.8	9-->13	1.2
Post High School	9	93.9		
	13	94.1	9-->13	0.2
SIZE AND TYPE OF COMMUNITY				
Extreme Inner City	9	81.7		
	13	89.9	9-->13	8.2
Extreme Rural	9	86.3		
	13	92.1	9-->13	5.8
Small City	9	91.4		
	13	94.2	9-->13	2.8
Medium City	9	93.3		
	13	93.2	9-->13	-0.1
Rest Of Big City	9	91.2		
	13	95.7	9-->13	4.5
Suburban Fringe	9	95.0		
	13	93.6	9-->13	-1.5
Extreme Aff Suburb	9	94.7		
	13	95.9	9-->13	0.8



Exercise 10403 -- Ages 9 and 13

Objective III: Use what is read.
Subobjective B: Follow written directions.

This exercise which required discrimination between the positive aspect EVER and the negative aspect of NEVER was easy for both 9- and 13-year-olds, thus leaving little room for the 13-year-olds to improve in. About 2% more 13-year-olds than 9-year-olds answered both statements correctly. Less than half as many 13-year-olds answered both statements incorrectly.

Exercise 106

People who run zoos sometimes put signs on animal cages to tell what the animals are like or where they come from. If you went to a zoo and saw these four signs on different cages, which one would tell you that there is a dangerous animal inside the cage? Fill in the oval beside the correct sign.

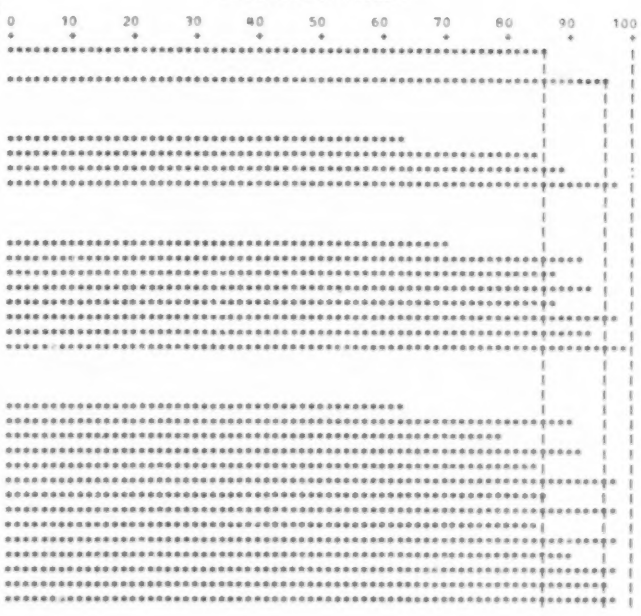
Nat'l % Choosing Each Answer			
Age 9	Age 13		
2.0%	0.8%	⬭	Inside this cage is one of the smallest animals found in America.
85.3%	95.8%	⬬	Inside this cage is an extremely ferocious animal.
0.6%	0.3%	⬭	Inside this cage is an animal that sleeps all the time.
11.1%	2.5%	⬭	Inside this cage is a rare type of eagle -- one of the few left in the world.
0.7%	0.4%	⬭	I don't know.
0.4%	0.2%		No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE	PERCENTAGE OF SUCCESS 0 10 20 30 40 50 60 70 80 90 100
	NATIONAL	9	85.3			
	NATIONAL	13	95.8	9-->13	10.5	
REGION						
	Southeast	9	77.9			
		13	93.0	9-->13	15.1	
	West	9	83.5			
		13	96.1	9-->13	12.7	
	Central	9	90.5			
		13	97.0	9-->13	6.6	
	Northeast	9	87.4			
		13	96.9	9-->13	9.5	
SEX						
	Male	9	82.9			
		13	95.2	9-->13	12.3	
	Female	9	87.6			
		13	96.4	9-->13	8.8	

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	9	85.3		
NATIONAL	13	95.8	9-->13	10.5
COLOR				
Black	9	62.9		
	13	84.3	9-->13	21.5
White	9	89.0		
	13	97.8	9-->13	8.8
PARENTAL EDUCATION				
No High School	9	69.6		
	13	91.3	9-->13	21.7
Some High School	9	86.6		
	13	93.4	9-->13	6.8
Graduated High Sch.	9	87.3		
	13	97.1	9-->13	9.9
Post High School	9	93.0		
	13	98.4	9-->13	5.4
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	9	62.9		
	13	89.8	9-->13	26.9
Extreme Rural	9	78.5		
	13	91.9	9-->13	13.4
Small City	9	84.1		
	13	96.4	9-->13	12.3
Medium City	9	85.4		
	13	96.6	9-->13	11.2
Rest Of Big City	9	88.8		
	13	97.5	9-->13	12.8
Suburban Fringe	9	89.6		
	13	97.2	9-->13	7.6
Extreme Aff Suburb	9	96.3		
	13	97.1	9-->13	0.8



Exercise 106 -- Ages 9 and 13

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

This exercise required 9- and 13-year-olds to identify which of four signs that might be seen on cages at a zoo indicated the presence of a dangerous animal. To be correct, one had to know the meaning of both "dangerous" and "ferocious." Eighty-five percent of all 9-year-olds and 96% of all 13-year-olds correctly identified the "ferocious animal" sign as indicating a dangerous animal--a percentage increase of 11. Most of the 9-year-olds who answered incorrectly, chose the "rare eagle" sign. They may have heard that eagles can be dangerous, and possibly the percentage of children learn the meaning of ferocious between age 9 and age 13.

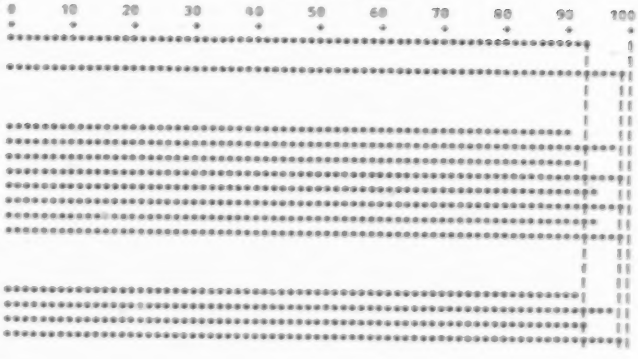
Exercise 121

A compound word is a word which is made by joining two words together. Fill in the oval beside the compound word.

Nat'l % Choosing Each Answer			
Age 9	Age 13		
1.8%	0.4%	○	ACROBAT
92.6%	98.2%	●	CLASSROOM
1.1%	0.3%	○	SEPARATE
1.1%	0.8%	○	SUMMER
1.8%	0.2%	○	I don't know.
1.7%	0.3%		No response

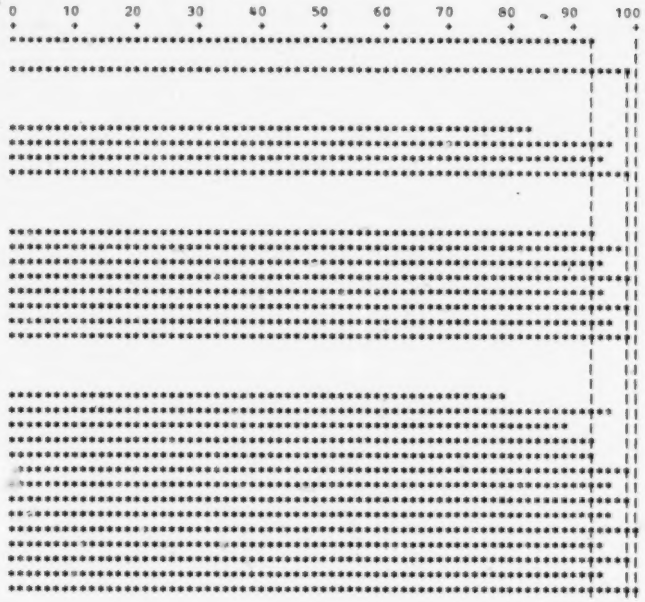
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	9	92.6		
	NATIONAL	13	98.2	9-->13	5.6
REGION					
	Southeast	9	89.8		
		13	96.8	9-->13	7.0
	West	9	91.2		
		13	99.1	9-->13	7.9
	Central	9	94.4		
		13	98.6	9-->13	4.2
	Northeast	9	94.3		
		13	98.1	9-->13	3.7
SEX					
	Male	9	92.1		
		13	97.7	9-->13	5.6
	Female	9	93.2		
		13	98.7	9-->13	5.5



NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	9	92.6		
NATIONAL	13	98.2	9-->13	5.6
COLOR				
Black	9	82.7		
	13	95.1	9-->13	12.5
White	9	94.1		
	13	98.7	9-->13	4.6
PARENTAL EDUCATION				
No High School	9	93.1		
	13	96.7	9-->13	3.6
Some High School	9	94.1		
	13	98.6	9-->13	4.6
Graduated High Sch.	9	94.4		
	13	98.6	9-->13	4.2
Post High School	9	95.4		
	13	98.2	9-->13	2.7
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	9	78.8		
	13	96.0	9-->13	17.3
Extreme Rural	9	88.1		
	13	93.4	9-->13	5.4
Small City	9	92.4		
	13	98.9	9-->13	6.5
Medium City	9	95.1		
	13	98.9	9-->13	3.8
Rest Of Big City	9	95.2		
	13	99.3	9-->13	4.2
Suburban Fringe	9	93.9		
	13	98.4	9-->13	4.5
Extreme Aff Suburb	9	94.7		
	13	99.9	9-->13	5.2



Exercise 121 -- Ages 9 and 13

Objective I: Comprehend what is read.
Subobjective A: Read individual words.

This exercise required 9- and 13-year-olds to recognize which of four words contained two smaller words, that is, a compound word. Even though the three incorrect choices contained one small word (bat, rate, and sum), this exercise was easy for the 9-year-olds--93% of them identified classroom as the compound word. This left little room for improvement for the 13-year-olds--98% of them identified classroom.

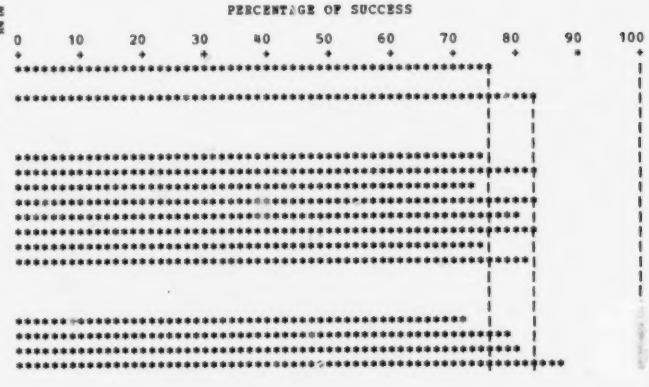
Exercise 114

Read the sentence and fill in the oval beside the group of words which tells what the sentence means.

Nat'l % Choosing Each Answer		"I certainly won't miss that movie."
Age 13	Age 17	
8.0%	3.9%	⬭ I like that movie.
76.1%	82.6%	⬬ I'm going to that movie.
7.5%	7.4%	⬭ I'm not going to that movie.
5.4%	3.0%	⬭ I hope I'll see that movie, but I don't know if I can.
2.0%	2.3%	⬭ I didn't see that movie, although it was here all fall.
0.8%	0.6%	⬭ I don't know.
0.3%	0.3%	No response

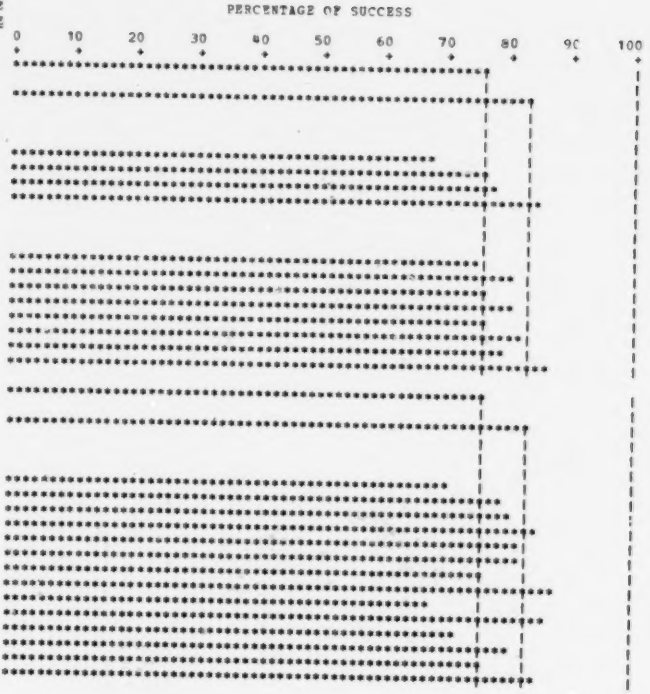
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	76.1		
	NATIONAL	17	82.6	13-->17	6.5
REGION					
	Southeast	13	74.8		
		17	83.2	13-->17	8.4
	West	13	73.5		
		17	83.3	13-->17	9.8
	Central	13	80.5		
		17	82.7	13-->17	2.2
	Northeast	13	74.9		
		17	81.4	13-->17	6.4
SEX					
	Male	13	72.0		
		17	78.1	13-->17	6.1
	Female	13	80.4		
		17	87.2	13-->17	6.8



NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	76.1		
NATIONAL	17	82.6	13-->17	6.5
COLOR				
Black	13	67.6		
	17	75.2	13-->17	7.7
White	13	77.6		
	17	83.8	13-->17	6.2
PARENTAL EDUCATION				
No High School	13	74.9		
	17	79.3	13-->17	4.4
Some High School	13	75.9		
	17	80.7	13-->17	4.7
Graduated High Sch.	13	76.3		
	17	82.1	13-->17	5.7
Post High School	13	78.9		
	17	85.5	13-->17	6.6
NATIONAL	13	76.1		
NATIONAL	17IS	82.6	13-->17	6.5
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	69.8		
	17IS	78.3	13-->17	8.5
Extreme Rural	13	80.0		
	17IS	83.9	13-->17	3.9
Small City	13	81.8		
	17IS	81.0	13-->17	-0.9
Medium City	13	76.1		
	17IS	86.8	13-->17	10.8
Rest Of Big City	13	66.5		
	17IS	85.0	13-->17	18.5
Suburban Fringe	13	70.8		
	17IS	80.2	13-->17	9.3
Extreme Aff Suburb	13	75.8		
	17IS	83.9	13-->17	8.1



Exercise 114 -- Ages 13 and 17

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

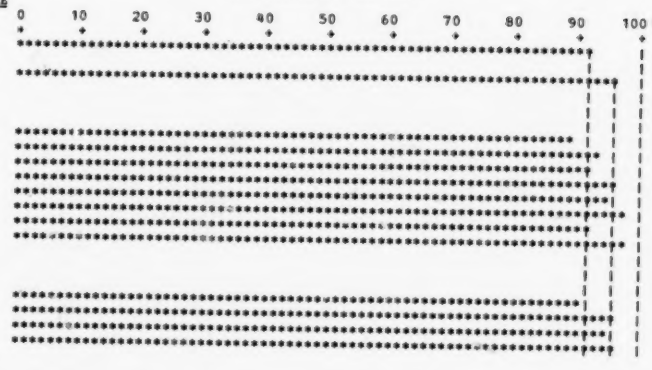
Success on this exercise depends not only on the comprehension of "certainly" but also to some extent on the interpretation of "miss." That is, does one read, "I certainly won't [fail to attend] that movie" or "I certainly won't [feel the absence of] that movie." Seventy-six percent of all 13-year-olds and 83% of all 17-year-olds correctly indicated that the statement meant "I'm going to that movie"--a percentage increase of 7. Between 7% and 8% of both 13- and 17-year-olds chose "I'm not going to that movie"--possibly as a result of making the second interpretation of "miss." This still leaves 10% of the 17-year-olds who failed this exercise for unaccountable reasons.

Exercise 117

Nat'l % Choosing Each Answer			
Age 13	Age 17	Which of the following asks a question?	
0.8%	0.3%	○	Already the has answer given been
0.8%	0.2%	○	Been the answer already given has
91.9%	95.9%	●	Has the answer already been given
1.6%	1.0%	○	Has the given already answer been
2.9%	1.3%	○	The answer has been given already
0.6%	0.6%	○	I don't know.
1.4%	0.7%		No response

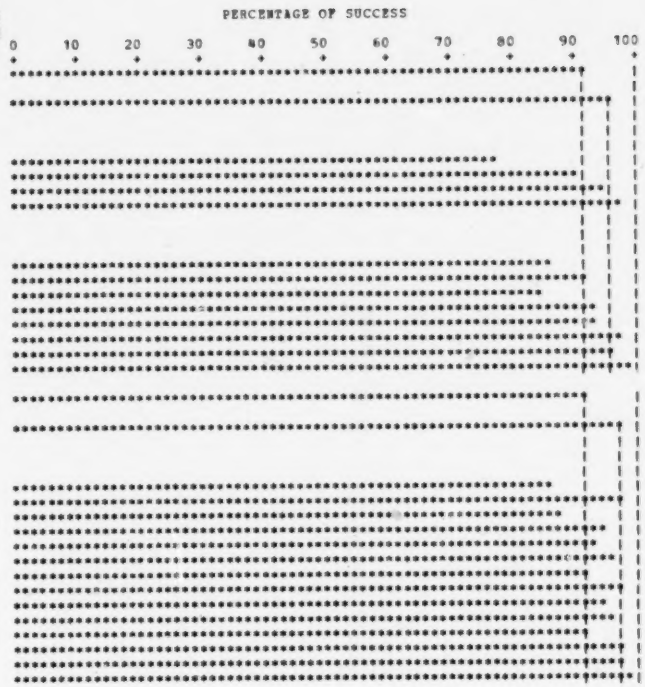
NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	91.9		
	NATIONAL	17	95.9	13-->17	4.1
REGION					
	Southeast	13	88.9		
		17	93.0	13-->17	4.1
	West	13	91.6		
		17	96.3	13-->17	4.8
	Central	13	94.5		
		17	96.7	13-->17	2.2
	Northeast	13	91.6		
		17	96.8	13-->17	5.2
SEX					
	Male	13	89.8		
		17	95.4	13-->17	5.6
	Female	13	93.9		
		17	96.4	13-->17	2.5



NATIONAL AND GROUP PERCENTAGES OF SUCCESS

	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	91.9		
NATIONAL	17	95.9	13-->17	4.1
COLOR				
Black	13	77.2		
	17	90.6	13-->17	13.4
White	13	94.8		
	17	96.6	13-->17	2.1
PARENTAL EDUCATION				
No High School	13	86.1		
	17	91.3	13-->17	5.1
Some High School	13	84.5		
	17	92.4	13-->17	7.9
Graduated High Sch.	13	93.5		
	17	96.7	13-->17	3.2
Post High School	13	96.0		
	17	97.9	13-->17	1.9
NATIONAL	13	91.9		
NATIONAL	17IS	96.8	13-->17	4.6
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	85.3		
	17IS	96.7	13-->17	11.4
Extreme Rural	13	87.4		
	17IS	93.7	13-->17	6.3
Small City	13	92.3		
	17IS	96.1	13-->17	3.7
Medium City	13	91.8		
	17IS	97.0	13-->17	5.2
Rest Of Big City	13	94.1		
	17IS	95.5	13-->17	1.4
Suburban Fringe	13	92.0		
	17IS	96.7	13-->17	4.7
Extreme Aff Suburb	13	97.2		
	17IS	98.5	13-->17	1.3



Exercise 117 -- Ages 13 and 17

Objective I: Comprehend what is read.
Subobjective B: Read phrases, clauses, and sentences.

This exercise requires 13- and 17-year-olds to determine which of several groupings of words ask a question. They must recognize, first of all, that three of the five possible answers have word orders that make no sense. Of the two remaining possibilities, one is a true declarative sentence, and the other (correct) answer is a question. This exercise was easy for both age levels with 92% and 96%, respectively, answering correctly. The true declarative sentence was the most popular incorrect answer at both age levels.

Exercise 120

Read the passage and answer the question.

Suburbanites are not irresponsible. Indeed, what is striking about the young couples' march along the abyss is the earnestness and precision with which they go about it. They are extremely budget-conscious. They can rattle off most of their monthly payments down to the last penny; one might say that even their impulse buying is deliberately planned. They are conscientious in meeting obligations, and rarely do they fall delinquent in their accounts.

They are exponents of what could be called budgetism. This does not mean that they actually keep formal budgets--quite the contrary. The beauty of budgetism is that one doesn't have to keep a budget at all. It's done automatically. In the new middle-class rhythm of life, obligations are homogenized, for the overriding aim is to have oneself precommitted to regular, unvarying monthly payments on all the major items.

Americans used to be divided into three sizable groups: those who thought of money obligations in terms of the week, of the month, and of the year. Many people remain at both ends of the scale, but with the widening of the middle class, the mortgage payments are firmly geared to a thirty-day cycle, and any dissonant peaks and valleys are anathema. Just as young couples are now paying winter fuel bills in equal monthly fractions through the year, so they seek to spread out all the other heavy seasonal obligations they can anticipate. If vendors will not oblige by accepting equal monthly installments, the purchasers will smooth out the load themselves by floating loans.

It is, suburbanites cheerfully explain, a matter of psychology. They don't trust themselves. In self-entrapment is security. They try to budget so tightly that there are no unappropriated funds, for they know these would burn a hole in their pocket. Not merely out of greed for goods, then, do they commit themselves; it is protection they want, too. And though it would be extreme to say that they go into debt to be secure, carefully charted debt does give them a certain peace of mind--and in suburbia this is more coveted than luxury itself.

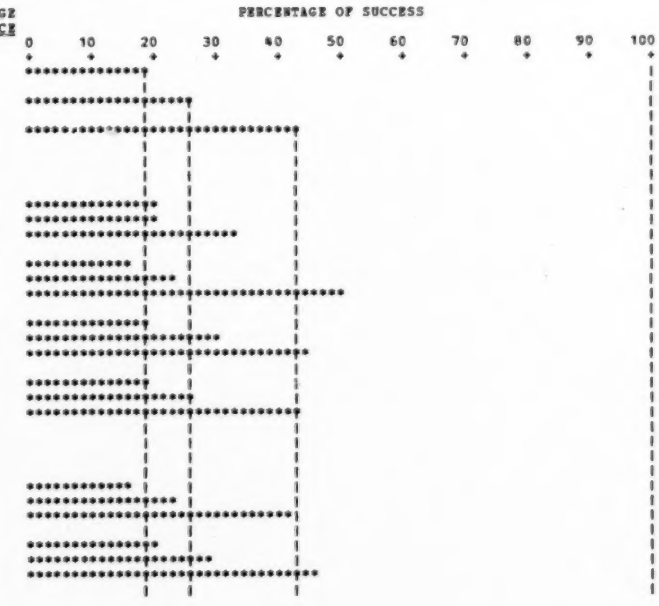
Nat'l % Choosing Each Answer

How could "budgetism" BEST be defined?

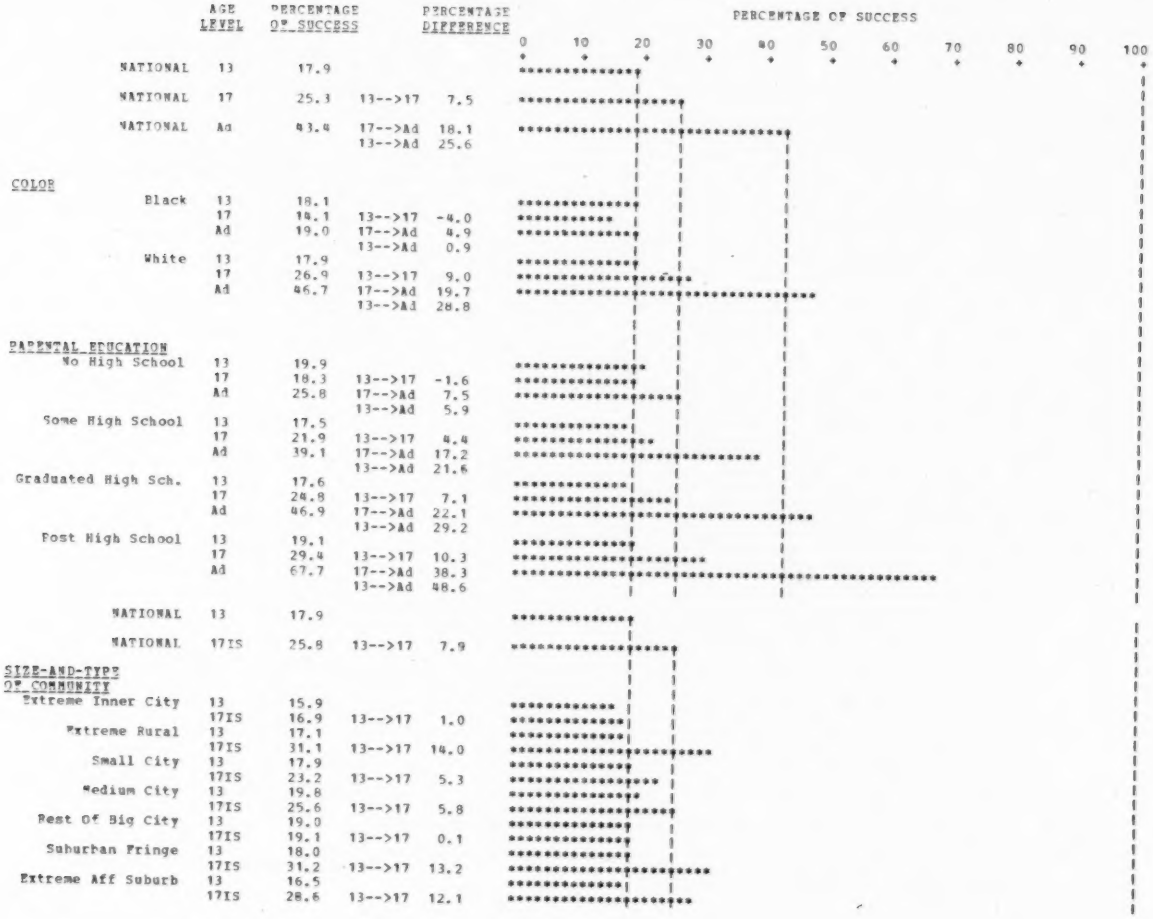
Age 13	Age 17	Adult		
6.4%	7.5%	6.5%	○	Buying everything on the installment plan
22.9%	19.7%	19.3%	○	Keeping careful records of income and outgo
14.5%	10.9%	5.8%	○	Deciding in advance how much will be spent each year
31.3%	31.2%	21.5%	○	Setting aside a certain amount each month for regular expenses
17.9%	25.3%	43.4%	●	Committing almost the entire monthly income to regular payments
6.6%	4.4%	2.5%	○	I don't know.
0.4%	1.0%	0.9%		No response

NATIONAL AND GROUP PERCENTAGES OF SUCCESS

		AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
	NATIONAL	13	17.9		
	NATIONAL	17	25.3	13-->17	7.5
	NATIONAL	Ad	43.4	17-->Ad	18.1
				13-->Ad	25.6
REGION					
	Southeast	13	19.8		
		17	20.6	13-->17	0.7
		Ad	32.7	17-->Ad	12.2
				13-->Ad	12.9
	West	13	15.6		
		17	23.3	13-->17	7.7
		Ad	50.5	17-->Ad	27.2
				13-->Ad	34.9
	Central	13	18.2		
		17	30.3	13-->17	12.1
		Ad	44.5	17-->Ad	14.3
				13-->Ad	26.3
	Northeast	13	17.9		
		17	25.2	13-->17	7.4
		Ad	43.3	17-->Ad	18.1
				13-->Ad	25.5
SEX					
	Male	13	15.8		
		17	22.7	13-->17	6.9
		Ad	41.6	17-->Ad	18.9
				13-->Ad	25.8
	Female	13	19.7		
		17	28.2	13-->17	8.5
		Ad	45.1	17-->Ad	16.9
				13-->Ad	25.5



NATIONAL AND GROUP PERCENTAGES OF SUCCESS



	AGE LEVEL	PERCENTAGE OF SUCCESS		PERCENTAGE DIFFERENCE
NATIONAL	13	17.9		
NATIONAL	17	25.3	13-->17	7.5
NATIONAL	Ad	43.4	17-->Ad	18.1
			13-->Ad	25.6
COLOR				
Black	13	18.1		
	17	14.1	13-->17	-4.0
	Ad	19.0	17-->Ad	4.9
			13-->Ad	0.9
White	13	17.9		
	17	26.9	13-->17	9.0
	Ad	46.7	17-->Ad	19.7
			13-->Ad	28.8
PARENTAL EDUCATION				
No High School	13	19.9		
	17	18.3	13-->17	-1.6
	Ad	25.8	17-->Ad	7.5
			13-->Ad	5.9
Some High School	13	17.5		
	17	21.9	13-->17	4.4
	Ad	39.1	17-->Ad	17.2
			13-->Ad	21.6
Graduated High Sch.	13	17.6		
	17	24.8	13-->17	7.1
	Ad	46.9	17-->Ad	22.1
			13-->Ad	29.2
Post High School	13	19.1		
	17	29.4	13-->17	10.3
	Ad	67.7	17-->Ad	38.3
			13-->Ad	48.6
NATIONAL	13	17.9		
NATIONAL	17IS	25.8	13-->17	7.9
SIZE-AND-TYPE OF COMMUNITY				
Extreme Inner City	13	15.9		
	17IS	16.9	13-->17	1.0
Extreme Rural	13	17.1		
	17IS	31.1	13-->17	14.0
Small City	13	17.9		
	17IS	23.2	13-->17	5.3
Medium City	13	19.8		
	17IS	25.6	13-->17	5.8
Rest Of Big City	13	19.0		
	17IS	19.1	13-->17	0.1
Suburban Fringe	13	18.0		
	17IS	31.2	13-->17	13.2
Extreme Aff Suburb	13	16.5		
	17IS	28.6	13-->17	12.1

Exercise 120 -- Ages 13, 17, and Adult

Objective I: Comprehend what is read.
Subobjective C: Read paragraphs, passages, and longer works.

This exercise required the reader to determine the meaning of a made-up word--"budgetism"--from its contextual use to describe the spending habits of suburbanites, to wit: committing almost the entire monthly income to regular payments. At the national level, 18% of 13-year-olds, 25% of 17-year-olds, and 43% of young adults identified the correct meaning of "budgetism."

At all three ages, more individuals failed than succeeded. It is appropriate, therefore, that we carefully examine the incorrect choices to determine why they were attractive and why the correct meaning of "budgetism" was allusive.

All the incorrect choices in some sense could be thought of as meaning "budget" or "budgeting," and many individuals may have confused these terms with the made-up term, "budgetism." The fourth choice, "Setting aside a certain amount for regular expenses," agrees with the passage. The last sentence of the second paragraph states "...aim is to have oneself precommitted to regular, unvarying monthly payments..." However, neither this choice nor any of the other incorrect choices "commits almost the entire monthly income" to these regular payments. The correct answer must be gleaned from two parts of the passage: (1) the last sentence in the second paragraph (which could support the fourth choice) gives us "...to have oneself precommitted to regular, unvarying monthly payments...," but one must go to (2) the fourth sentence in the last paragraph to get "...there are no unappropriated funds..." This plus the fact that "budgetism" is a neologism (made-up word) easily confused with "budget" or "budgeting" which to varying degrees by the incorrect choices gives us one plausible explanation for the difficulty of this exercise.

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